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Missouri Medicine

OURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JANUARY, 1958

VOLUME 55, NUMBER 1

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Curiosa et Trivia

William B. McCunniff, M.D.

After William Harvey published his paper on circulation of the blood, his medical practice dropped almost to zero. The fact that he was physician to two kings failed to alter his fortunes.

Compared to Americans who consume an average of 161 pounds of meat per year, New Zealanders put away 216 pounds of what must be considered a fairly high protein diet.

After cleaving the 3,106 carat Cullinan Diamond in Amsterdam in 1908, diamond-cutter Asscher spent the next three months in a hospital for nervous exhaustion.

One symptom accounts for the expenditure of about 100 million dollars a year in this country. It is estimated that this amount is spent for relief of insomnia.

Mithridates, King of Pontus 120-63, B.C., so feared his enemies would poison him that he concocted an antidote of 38 ingredients to render himself poison-proof. In 63 B.C., he was planning a campaign but his troops revolted. At his own bidding he was put to death by a Celtic soldier after having failed to kill himself by poison.

Capsule Clinics

I. A. Wein, M.D.

- Of the major causes of death in 1951 per 100,000 population, heart disease ranks first and accidents rank fourth. Kennedy, R. H.: Bulletin, Am. Col. Surg. **40** (March-April) 1955.

- In 1,000 autopsies of cancer patients, lung metastases occurred in 46.5 per cent. The Cancer Bulletin **7** (March-April) 1955.

- Thomas Hodgkin in 1832 first described Hodgkin's disease in spite of the fact that during his career the microscope was virtually unknown. The Cancer Bulletin **7** (March-April) 1955.

- In advising cholecystectomy in patients with gallstones, it is important to be aware of the fact that gallstones are present in 60 to 100 per cent of the cases of carcinoma of the gallbladder. The Cancer Bulletin **6** (July-August) 1954.

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Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

WASHINGTON

Many Washington observers are wondering just how the top-level shakeups in labor, such as the A.F.L.-C.I.O. ouster of the Teamsters, will affect pending labor-backed legislation in Congress this session.

This loss of labor unity plus the national concern for stronger defense brought on by the Sputniks may mean that social legislation faces a rougher way to go.

Congressmen may prove more receptive to letters from constitutents in view of these new developments, so if you have not told your legislator how you feel about the Forand bill now is the time to do it.

There already is some indication this bill backed by the A.F.L.-C.I.O. to provide free hospitalization for the aged may receive careful scrutiny from the administration. John A. Perkins, undersecretary of the Department of Health, Education and Welfare, said as much at a recent meeting of the American Public Welfare Association.

While telling them he was not questioning the idea of federal aid in cases of poverty and want, he did say:

"I am suggesting that the present state of world affairs is a signal that there will inevitably be a review on all levels of government of all governmental services. Their relative significance and the contribution of each to our national leadership —indeed survival—in the Atomic-Space Age will necessarily be studied and restudied."

The American Hospital Association's Board of Trustees also has joined a growing list of groups opposed to the Forand bill. However the A.H.A. qualified its opposition to the bill sponsored by Rep. Aime Forand, Rhode Island Democrat, somewhat by stating that federal legislation will be necessary someday "to solve the problem satisfactorily."

The A.H.A. board commented there were certain inherent dangers in using the social security mechanism to provide hospitalization. But it added that if other voluntary means are not found, the use of social security "may be necessary ultimately."

On the other hand at the Philadelphia meeting of the American Medical Association, the Forand bill (H. R. 9467) was branded as true socialized medicine by President David B. Allman. His stand was indorsed by the House of Delegates without dissent. (The Council of the MSMA went on record against the bill last September.)

Asian influenza apparently is increasing in its severity, according to the findings of the National Health Survey. Its survey showed that in recent weeks 55 per cent of the cases required three or more days' bed care, compared with the summer months when only 40 per cent were confined to bed as long as three days.

More hospital beds for the Veterans Administration mean that more non-service connected cases will be admitted, congressmen have been told.

This candid explanation was given at a hearing of the House Committee on Veterans' Affairs by Harvey V. Higley, Veterans Administrator. His statement:

"If you have an extra bed you are not using, and if you have a veteran, non-service connected, who needs hospitalization, and he cannot afford to pay for that hospitalization, then we are automatically to take him in. But it is predicated entirely, you will note, on IF WE HAVE EXTRA BEDS. . . . Now we find ourselves today in the situation of keeping about 100,000 patients in our own hospitals, and on any given day over a third of them are service connected and two-thirds of them are non-service connected. So, just putting it bluntly, that is the situation. If you add on any appreciable number of beds, either as a big addition or as a big hospital YOU ARE BUILDING BEDS FOR NON-SERVICE CONNECTED, whereas the law as it exists today actually says you will only take in non-service connected when you have EXTRA beds, when they are beds you do not need for the service-connected."

The vast picture of all Federal medical-health spending has been assembled in the fifth annual budget report of the Washington office of the American Medical Association.

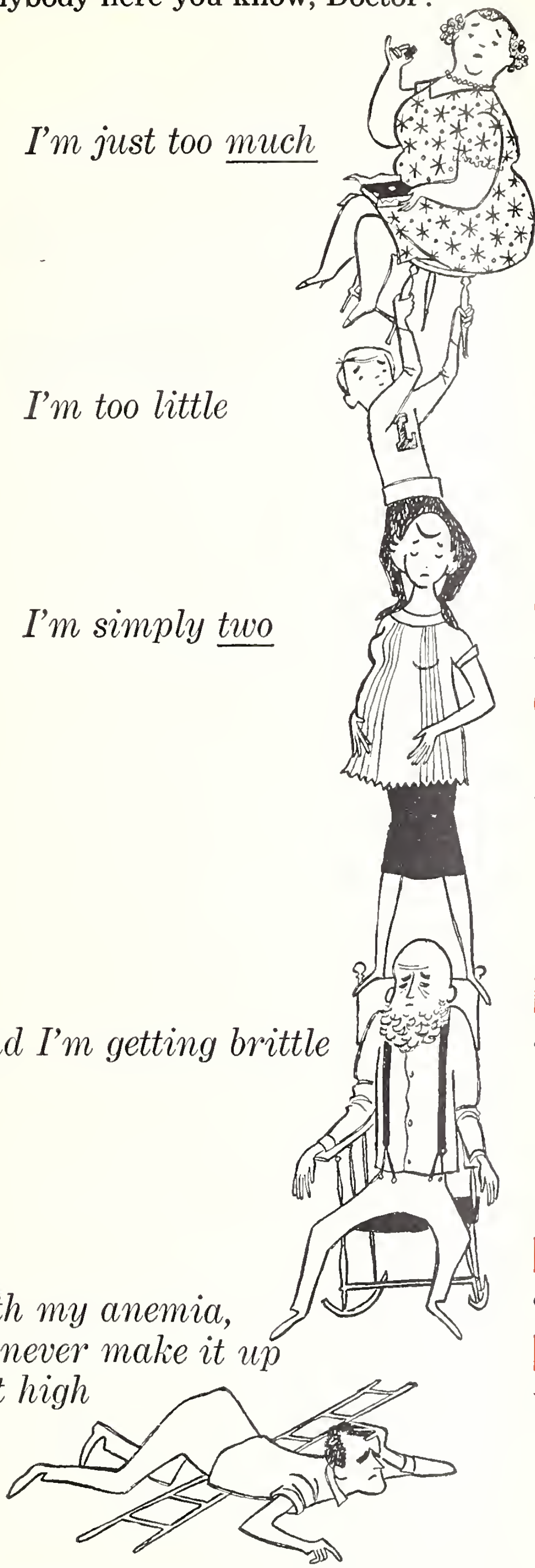
The complexity of the picture is pointed up by the fact that 23 Federal departments and agencies are engaged in some medical activity.

The report states that despite the "economy drive" the programs for the fiscal year 1958 will approximate those of last year at about 2.5 billion dollars. They range from the Department of Health, Education and Welfare at $849,395,800 to the Office of the Attending Physician of Congress at $12,145.

This 2.5-billion-dollar total does NOT include other money spent on disabled persons where the United States puts up all or part of the money. Disability benefits to groups such as veterans and the blind will cost more than 3.2 billion next year. It is estimated that the U. S. will put up well over 80 per cent of this.

Copies of Special Report 85-7 can be had by writing American Medical Association, Washington Office, 1523 L Street, N.W., Washington 5, D. C.

Other departments or agencies included in the 2.5-billion-dollar sum are: Veterans' Administration at $849,374,000; Department of Defense, $702,305,000; Atomic Energy Commission, $40,085,000, and Department of Labor, $8,069,476.



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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Dr. John R. Caulk, St. Louis, was elected secretary of the Surgical Section of the Southern Medical Association at its meeting in Memphis, Tenn., November 12-15. The term of office will be for two years.

Dr. J. J. Evans, Manes, being forced by a paralytic stroke to retire from practice, has been elected an honorary member of the of the Wright County Medical Society. He has been a member since the organization of the society.

Dr. Daniel N. Eisendrath, Chicago, was a guest of the Medical Society of the City Hospital Alumni of St. Louis, December 6, and delivered an oration on "A Plea for Better Team Work Between the Surgeon and Internist in the Surgery of the Bile Tract."

At a meeting of druggists from several states in the Missouri Valley recently a resolution was adopted urging druggists to restrict the sale of patent medicines containing large amounts of alcohol and prevent these articles as far possible from being used as intoxicants.

The regular meeting of the Benton County Medical Society was held in Warsaw in Dr. Savage's office, December 19. The train from the north being late, the meeting was called to order at 10:30 o'clock with Dr. Savage acting as president, pro tem. The election of officers for the ensuing year resulted as follows: president, Dr. Willis G. Jones, Lincoln; vice president, Dr. Edmond F. Haynes, Warsaw; secretary-treasurer, Dr. Horace G. Savage, Warsaw; delegate, Dr. J. M. Edwards, Fairfield.

The regular meeting of the Cape Girardeau County Medical Society was held at Cape Girardeau, December 10, 1917. The following officers were elected for 1918: president, D. G. Seibert; vice president, O. L. Seabaugh, Cape Girardeau; secretary, E. H. G. Wilson, Cape Girardeau; treasurer, W. N. Howard, Cape Girardeau.

The Lawrence-Stone County Medical Society met at Aurora, December 4, 1917. The following officers were elected for the year 1918: president, T. D. Miller; vice president, R. W. Smart; secretary, R. C. Robertson; treasurer, F. S. Stevenson.

TWENTY FIVE YEARS AGO

Dr. Jabez N. Jackson, Kansas City, was appointed director of Health in Kansas City on December 19, to succeed Dr. Calvin L. Cooper who died December 1.

Dr. Frank Hurwitt, Kansas City, was elected president of the Mid-Western Society of Anesthetists at the Congress of Anesthetists held in New York in September.

Dr. John Zahorsky, St. Louis, has been elected president of the Bethesda Hospital of St. Louis.

Dr. E. M. Frommer, St. Joseph, has been notified by the Hungarian Society of Pathology that he has been awarded the society Schoenlein prize medal for 1932 for outstanding research work in cancer.

The Nodaway County Medical Society met in regular monthly session at the St. Francis Hospital, Maryville, November 11. This meeting was held as a memorial and celebration of the sixtieth anniversary of the society's foundation on November 23, 1872.

The Henry County Medical Society met in the county court room in Clinton, November 30, at 2:00 o'clock. In the absence of the president, Dr. G. S. Walker, Clinton, presided.

The meeting of the Jasper County Medical Society was called to order at Joplin, November 22, with fifteen members and five visitors present. In the absence of the president, Dr. J. E. Douglas, Webb City, the vice president, Dr. Ed D. James, Joplin, presided.

TEN YEARS AGO

Frank J. Koenig, M.D., Kansas City, was elected president of the Missouri Association of Mental Hygiene at its annual meeting in Kansas City, November 17. G. W. Robinson, Jr. M.D., was elected vice president.

Ralf Hanks, M.D., Nevada, superintendent of State Hospital No. 3 at Nevada since 1941, has resigned because of illness. Paul L. Barone, M.D., Nevada, will serve as acting superintendent.

J. H. Keim, M.D., Cape Girardeau, was a guest speaker recently at a meeting of the Nancy Hunter Chapter, D.A.R., in Cape Girardeau. He spoke on "Medical Advancement in America."

Jesse E. Douglas, M.D., Webb City, spoke before the Downtown Lions Club in Joplin recently on recent developments in the surgical treatment of chest diseases.

Alphonse McMahon, M.D., St. Louis, was elected president of the Mississippi Valley Medical Society at a meeting of the board of directors on November 16. Clinton W. Lane, M.D., St. Louis, was elected second vice president.

E. Lee Dorsett, M.D., was elected chairman of the Section on Obstetrics of the Southern Medical

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ROBAXIN IN ACUTE BACK PAIN[1,3,4,6,7]

DURATION OF TREATMENT	DOSE PER DAY (divided)	RESPONSE marked	mod.	slight	neg.	SIDE EFFECTS
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-42 days	2-6 Gm.	8	1	3	1	None, 12 Nervousness, 1
-240 days	2.25-6 Gm.	4	1	0	0	None, 5
-28 days	1.5-9 Gm.	24	3	0	3	None, 25 Dizziness, 1 Lightheadedness, 2 Nausea, 2 *
-60 days	4-8 Gm.	6	0	0	0	None, 6
		59	6	3	4	*Relieved on reduction of dose

References: **1.** Carpenter, E. B.: Publication pending. **2.** Carter, C. H.: Personal communication. **3.** Forsyth, H. F.: Publication pending. **4.** Freund, J.: Personal communication. **5.** Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. **6.** Nachman, H. M.: Personal communication. **7.** O'Doherty, D.: Publication pending. **8.** Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

The accompanying picture marks a unique and gratifying occasion. It was taken during the ceremony of awarding lapel pins to all Past Presidents of the Missouri Academy of General Practice at the 9th Annual Assembly. Standing, from left to right, are Doctors Martin, Dwyer, Wood, Wagenbach, Glover, Casebolt, McElvain, Shaw and Myers. Seated are Dr. and Mrs. R. R. Becker and Dr. and Mrs. P. V. Siegel. Dr. Becker is President and Dr. Siegel President-elect.

It is not generally known that the distinguished leaders of the Missouri Academy of General Practice continue to serve the organization long after the expiration of their presidency. Their first year as Past President is fraught with the many time-consuming responsibilities of Chairman of the Board of Directors. The second year spent as Chairman of the Advisory Committee is less demanding but remains heavy with responsibility. From there on Past Presidents serve as members of the advisory committee and in many other capacities designed to capitalize on their experience and ability. Obviously the Missouri Academy of General Practice gets excellent "mileage" from its presidents.

Academy Members Active

The Academy is proud to call attention to the fact that Dr. Robert B. Bassett has been nominated for president of the St. Louis Medical Society, Dr. W. T. Gunn as a member of the council and other Academy members as delegates. Dr. Preston C. Hall has recently been appointed as chief of General Practice at the Bethesda Hospital. Dr. Walter T. Gunn was invited to take part in a four man panel at Washington University School of Medicine on December 7 to discuss "Opportunities for Doctors in General Practice." The purpose of the discussion was to aid members of the freshman class in deciding what branch of medicine to enter when they leave school.

Academy to Meet Next March in Dallas

The American Academy of General Practice Tenth Annual Scientific Assembly will give more than 8,000 family doctors, residents, interns and guests an opportunity to hear 35 medical experts discuss subjects ranging from teen-age problems to old-age problems and from heart disease and ulcers to eye ailments, fractures and the hypnotized patient. The four-day Assembly opens March 24 in the new Dallas Memorial Auditorium.

More than 90 scientific and 300 technical exhibits will supplement the scientific lecture program.

Special activities are planned for the Academy's tenth anniversary Assembly. Tuesday, March 25, will be Dallas Southern Clinical Society Day. The DSCS meeting, held each March in Dallas, has this year been combined with the AAGP Assembly.

The Academy's policy-making Congress of Delegates will convene at 2:00 o'clock, March 22. All sessions of the Congress and many social functions will be held in the Statler Hilton hotel.

Wednesday evening, March 26, following induction ceremonies for Academy President-elect Holland T. Jackson, Ft. Worth, Tex., more than 3,000 guests will attend a president's reception and dance honoring Dr. Malcom E. Phelps, El Reno, Okla., president of the Academy.

Missouri Medicine in Review

(Continued from page 8)

Association at the Baltimore session of the Association.

Is cardiovascular disease an occupational hazard peculiar to physicians? Are doctors dying earlier now than formerly? To answer these questions Reginald Fitz, *Archives of Internal Medicine* **76**: 210 (October) 1945, has studied the mortality table for physicians found in the *Journal of the American Medical Association.* In his conclusions, which offer a degree of comfort, he reveals that year by year more physicians reach the age 60. The total number living beyond 60 is increasing steadily and a greater number reaches 70 and 80.

The South Central Counties Medical Society held a dinner meeting at the El Patio Hotel, Cabool, on November 21, with the scientific meeting at the office of Garrett Hogg, Jr., M.D. Members and visitors present were J. R. Mott, M.D., Hartville; L. T. VanNoy, M.D., Norwood; R. A. Ryan, M.D., H. G. Frame, M.D., and A. C. Ames, M.D., Mountain Grove; Garrett Hogg, Jr., M.D., Cabool; Rollin H. Smith, M.D., West Plains; Fred Farthing, M.D., and S. S. Peterson, M.D., Springfield.

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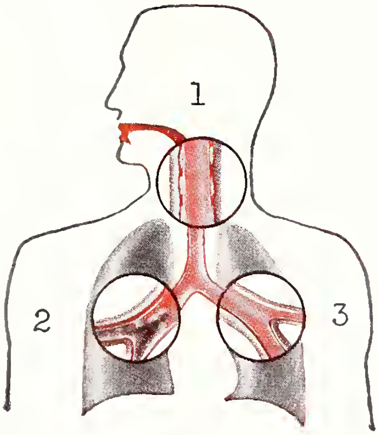

*Drawing shows how 3-pronged attack of Pyribenzamine Expectorant with Ephedrine breaks up cough by: (1) reducing histamine-induced congestion and irritation throughout the respiratory tract; (2) liquefying thick and tenacious mucus; (3) relaxing bronchioles. Pyribenzamine Expectorant with Codeine and Ephedrine also available (exempt narcotic). Pyribenzamine® citrate (tripelennamine citrate CIBA). CIBA

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FOREIGN DOCTORS STUDYING HERE

Missouri had more than 100 foreign interns and residents studying various medical specialties here during 1956-57, according to a survey conducted by the Institute of International Education and the American Medical Association.

Nationally, there were more than 6,700 foreign physicians in American hospitals for advanced medical training.

The study covered only interns and residents who had both a foreign citizenship and permanent residence in a foreign country. It did not include displaced persons resettled in the U. S. or foreign citizens who have immigrated to the U. S. for permanent residence.

A total of 797 hospitals reported having foreign physicians. Of these physicians, coming from 88 countries, 4,753 were residents and 1,988 were interns. Only 908 were women and more than 60 per cent of these were from the Far East. About one fourth of all the foreign doctors were in New York state, with others scattered throughout 43 other states, the District of Columbia, Hawaii and Puerto Rico.

More than one-third of all the doctors came from the Far Eastern countries. Latin America and Europe each accounted for one-fifth of the total; the Near and Middle East for only one-eighth.

Foreign residents were studying in 31 different specialties, with general surgery and general medicine leading the list.

The survey was summarized by two New Yorkers for the *Journal of the American Medical Association* (Nov. 16, 1957). Dr. James E. McCormack is assistant vice president of Presbyterian Hospital, New York, and Arthur Feraru, D. en D. de l'U. (Lyons), is associated with the Institute of International Education.

A survey of Americans studying abroad revealed: of 9,887 U. S. citizens studying abroad in 1955-56, approximately 21 per cent (2,056) were reported to be studying medicine. Of these, 669 were in Switzerland; 319 in Italy; 293 in Canada; 174 in the Netherlands; and 108 in Belgium.

HOW TO GUARD AGAINST LAWSUITS

The law department of the American Medical Association has prepared a 111-page book of medicolegal forms designed to help protect the physician. While (as the book's foreword indicates) it will not substitute for legal advice, it does give the doctor a broad picture of possible legal hazard.

It is divided into the following six sections, with various sample release forms for each:

Consent to operations and other procedures;
Patient's right to privacy;
Confidential communications and records;
Artificial insemination;
The physician-patient relationship;
Autopsy.

Each section carries a comprehensive explanation of the reason for the sample release forms. Many physicians, unknowingly, leave themselves wide open to suit every day. Today with the increasing tendency to sue the doctor, this book should be read by every physician.

Write the law department of the AMA for copies. The address is 535 North Dearborn Street, Chicago 10, Ill.

Woman's Auxiliary

MRS. ARMAND D. (*Ruth Anne*) FRIES, *President*

"May Christmas with its friendliness,
And all its warmth and cheer,
Its quiet charm and magic, too,
Bring joys that last the year."

However, by the time of this issue, the holiday season will be just a memory and another year will be on its way. As the new year begins, there is always the anticipation and hope that all things will be brighter and most of us have made a few resolutions. It is hoped that one of them will deal with the safety of our family and self, and the community in which we live.

Although 1957-1958 is the second year for the Safety Committee, the Auxiliary has participated in safety programs of various sorts for several years. We will continue to support GEMS and projects related to home and farm safety. This year, our National President has requested Safety as a priority project. The A.M.A. Committee on the Medical Aspects of Automobile Injuries and Deaths, has asked our assistance with the following phases of its program: (1) Driver training in high schools (only seven states have legislation related to this), (2) safety equipment in automobiles, particular emphasis on properly installed safety belts, (3) pressure for safety construction in automobiles, and (4) state legislation on chemical tests for intoxication.

While Mrs. Bauman and I were attending the National Conference for Presidents and Presidents-elect in Chicago, the 45th National Safety Congress was in session. Safety experts from across the nation and from 20 foreign countries were attending a five-day meeting. I quote from an article in the *Chicago Daily News*, Oct. 21, 1957, on Ned H. Dearborn, head of the National Safety Council, speaking at the opening session of the congress.

"We in the safety movement have failed to stir the hearts of our fellow countryman. There are scores of other worthy causes which arouse widespread support—heart ailments, cancer, tuberculosis, polio, muscular dystrophy and currently Asian flu—to mention only a few. Why in the name of humanity," he said, "do not the American people react in the same degree to the terrible toll of accidents—95,000 killed in 1956 alone; more than a million injured, many thousands of them permanently, and an economic loss of $11 billion."

Mr. Dearborn said business has recently taken positive action against off the job accidents, but labor is "still a weak safety voice," and women are "nowhere near as active in the safety field," as in other welfare work, and schools and colleges "have made only a good beginning."

Mr. Dearborn urged a new look at the council's program by all scientists from psychologists to mathematicians; and he also suggested an intensive and continuing study on basic causes of accidents, an evangelistic zeal for accident prevention and a reexamination by safety leaders of their own efforts.

The United States is frequently called "a nation on wheels" and statistics prove how apt this description is. Without a doubt, the motor vehicle has made an immeasurable contribution to our civilization—culturally, socially and economically—but it also exacted a terrible toll of accidents.

It is hoped that every Auxiliary member and her doctor husband will do all in their power to practice and aid further the fight for safety at home, on the highways, at work and at play.

MEDICAL SCHOOL ENROLLMENT UP

Medical school enrollment continued its increase in the 1956-57 school year, reflecting expansion of existing schools and new schools which have just opened their doors. During this time, the University of Missouri graduated its first class in medicine.

There were more freshmen medical students that year than ever before: 7,791, compared with 7,686 in 1955-56, according to the 57th annual report on medical education made by the American Medical Association's Council on Medical Education and Hospitals. The total enrollment for all medical students was 28,852, an increase of 213 over the previous year.

However, the number of 1957 graduates (6,796) was slightly smaller than in 1956 (6,845).

Other facts brought out in the report showed:

* The school of medicine of the University of Mississippi also graduated its first class. The University of Florida Medical School, Gainesville, Fla., and Seton Hall College of Medicine and Dentistry, Jersey City, N. J., enrolled their first classes.

* Beginning in September, 1960, the University of West Virginia will enroll third year medical students. At present it has only a two-year school of basic science. First classes will be admitted at the University of Kentucky, Lexington, in 1959 or 1960.

* Thirty-three schools reported initiation or completion of major construction projects. Nineteen began projects estimated to cost about $32,200,000—while 20 completed projects representing an investment of $67,500,000.

* There were 1,646 women enrolled in medical schools during the year, and 330 women were graduated in 1957.

* Ninety American citizens were enrolled in the 12 Canadian medical schools, while eight Canadians were in U. S. schools.

OFFICE PRACTICE OF CYTOLOGY

The Committee on Laboratory Medicine of the Missouri State Medical Association with the Missouri Society of Pathologists are soliciting speaking engagements at county medical society and hospital staff meetings or at any other medical meeting sponsored by and for Missouri physicians. The subject of these lecture-demonstrations is "Office Practice of Cytology." Requests for speakers should be sent to Joseph E. Flynn, M.D., Department of Pathology, University of Missouri, Columbia.

HOPEFUL OUTLOOK FOR HIGHWAY SAFETY

The new Missouri speed law appears to have put a definite curb on speeding and made drivers speed conscious, according to Lt. F. Shadwell, public information director for the Missouri Highway Patrol.

In addition, Missouri's driver education program should turn out an increasing number of well-trained and safety-conscious young drivers. It was for this program that Gov. James T. Blair recently received a bronze plaque as an award of honor for the state's work.

The plaque was presented by Emerson Westwick of Chicago, field representative of the Association of Casualty and Surety companies. Westwick called the program "a great testimonial to the work of the educators and patrol." Of 593 eligible high schools, 332 participated in driver training last year, with 18,434 of the 41,205 eligible students participating.

Governor Blair also has indicated he would like to see the state's driver's license law made more stringent.

In a television panel discussion at the University of Missouri, he said he would like to see the minimum age for obtaining a license "raised to 17 years instead of 16, and 18 would be better."

The governor added all drivers should be required to take driver's examinations every three years. The present law merely requires a fee on renewal every three years.

An automotive official bore out the contention that both motor cars and drivers are improving their safety showing year by year, saying that the public is confused by a number of "false notions" and "mistaken beliefs" about safety.

Karl M. Richards, manager of the field services department of the Automotive Manufacturers Association, told a traffic clinic that these fallacies are:

1. The "false notion" that traffic deaths and injuries are rising. He said that while car ownership and travel mileage are double pre-war levels, deaths and injuries are at or below their 1941 totals.

2. The "false notion" that the industry builds unsafe vehicles and should be required by law to incorporate specific safety features.

3. The "mistaken belief" that a small group of reckless or incompetent drivers accounts for a large share of accidents. Complete removal of accident repeaters from the traffic picture would reduce the accident toll only 4 per cent, he said.

4. The "erroneous notion" that traffic law violators, especially speeders, cause most accidents. He said facts show that nearly nine of every 10 accidents occur at speeds under 40 m.p.h. and that even in fatal accidents four of every five drivers involved obeyed the speed limits.

5. The "personal belief" of every driver that he is competent and his accidents are due to bad luck or the errors of other persons. He said routine driving tests conducted by a truck and bus fleet on operators show nine of 10 drivers have no better than average safety habits.

QUACKS INVESTIGATED IN LOS ANGELES

Quackery is a booming, big-money business in Los Angeles, according to the findings of two California state senate committees. The committees are investigating charlatans in the fields of medicine, education and religion as a preliminary to tightening the laws against them.

Get-well-quick cancer quacks cause many deaths every year, according to one witness, Milton P. Duffy, chief of drug inspections for the state. Duffy said convictions had been obtained against quacks who had prescribed such things as turnip juice and using ozone machines, salves, boots, and electric blankets in the treatment of cancer.

Another witness, Dr. John W. Cline, chairman of the cancer commission of the California Medical Association, described a "root brew" used for cancer. He said the root "had to be picked with the left hand at the rise of the moon on Friday the 13th—and the patient who told me about it completely believed in it." Dr. Cline described California as a fertile field for cancer quacks, since there are so many elderly people in the state. He added,

"Californians are seemingly more susceptible to cancer quacks than, for example, a hard-headed Yankee from New England."

California also seems to have its share of the diploma mills, as evidenced by other testimony.

A wrestler who tries to hypotize ring opponents—"Doctor" Orville Lee Grabeel—testified he received a doctor of philosophy degree from Sierra State College in 1947 after a 9-month course. The course was to make him a specialist in curing bad habits such as "smoking and fingernail biting." Grabeel was never graduated from high school. The state caught up with him last August for practicing hypnosis without a state license after a deputy sheriff posed as a patient and failed to be hypnotized.

Another witness on diploma mills, Kupeni Su'apa'ia, a native of American Samoa, said he paid $1,000 to a Honolulu doctor for a philosophy degree from "Golden State University."

"When they sent it to me," he testified, "they included a degree of bachelor of science which I didn't expect."

A.M.A. COUNTY MEDICAL SOCIETY SURVEY

Replies to the questionnaires sent to county medical societies concerning their activities and programs have been tabulated and published in booklet form by the A.M.A.'s Council on Medical Service. The booklet, "1957 Nationwide Survey on County Medical Society Activities," contains information on types of county medical society programs (such as emergency call systems or grievance committees), fee schedules, life insurance, attendance at meetings and dues. Copies have been sent to county and state medical societies. Additional copies may be secured from the Council.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 January, 1958 Number 1

Heart Disease in Pregnancy

JAMES G. JANNEY, JR., M.D., *St. Louis*

PREGNANCY IS A physiologic process which for its duration imposes a continuous burden easily borne by a normal woman but which in the cardiac patient may result in heart failure or even death. Pregnancy is not responsible for a specific etiologic type of heart disease but, in the presence of a previously diseased heart, may impose an intolerable circulatory burden. Fortunately, heart disease is found in only about 2 per cent of pregnant women. In approximately 90 per cent the etiology of the heart disease is rheumatic and of these approximately 75 per cent have mitral stenosis either alone or in combination with aortic valve lesions. Five per cent is made up of congenital heart disease and the remainder is composed of a miscellaneous group including syphilitic, hypertensive and arteriosclerotic heart disease.

With the development and use of better investigative tools a broader understanding of the circulatory problems has been gained, both of pregnancy and of heart disease. Through better understanding of the processes involved, through the development and refinement of therapeutic methods and through the introduction of surgery for mitral stenosis it is more possible to manage the pregnant cardiac patient. Utilizing these technics from 95 to 98 per cent of such cases can be managed successfully.

CIRCULATORY ALTERATIONS

Many circulatory alterations take place in the vascular system during a normal pregnancy. Most of the recent work[1, 2, 3] in this field seems to indicate that little change occurs prior to the twelfth week of pregnancy. There is then a fairly rapid rise in blood volume and cardiac output, reaching a rather high level by the twenty-fourth week, with the maximum somewhere between the twenty-eighth and thirty-sixth week. These changes are associated with a slight widening in the pulse pressure and a small increase of pulse rate. Blood volume and cardiac output fall considerably during the last several weeks of pregnancy. A gradual progressive rise in oxygen utilization continues throughout pregnancy.

It should be stressed that there are rather wide individual variations in these findings but the general trend seems to be clear (fig. 1). The increased blood flow is largely through the placental vessels and to some extent through the skin. No tissues' normal blood supply is encroached upon. Werco's[3] findings suggest that the usual reduction of renal blood flow during exercise does not occur in pregnancy. There is some pooling of blood and increase in venous pressure in the lower extremities. Presumably these latter factors may give rise to the edema which is often seen in a normal pregnant person. The high skin flow may induce the red palms so frequently seen in pregnancy; in all probability this is a mechanism for additional heat loss made necessary by the fetal metabolism. Increased cardiac output, along with the slightly increased pulse rate and pulse pressure, probably account for the unusually forceful heart sounds heard in pregnancy as well as the frequent apical

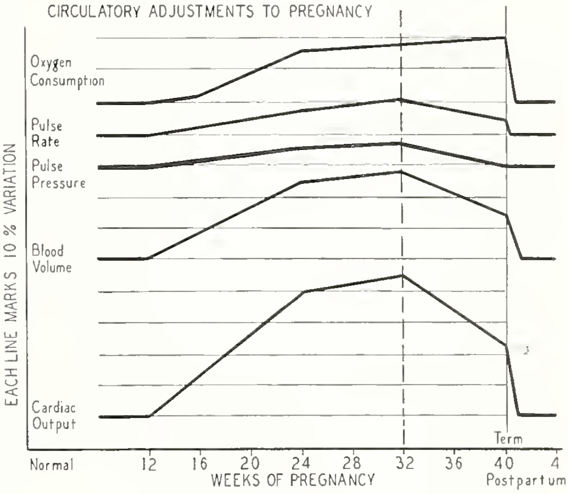

Fig. 1.

From the Section on Cardiology, Department of Internal Medicine, St. Louis University School of Medicine.

and pulmonic systolic murmurs noted in these women.

PULMONARY PHYSIOLOGY

Pulmonary physiology is also altered in normal pregnancy.[1] Gradually during the pregnancy the diaphragm rises but these is sufficient chest enlargement so that there is no change in the vital capacity. There is no change normally in the amount of blood contained in the pulmonary circulation. The patient's breathing is largely carried out in the expiratory position, hence there is a dimunition in the expiratory reserve. This is more than made up by an increase in inspiratory capacity. There is a gradual rise in ventilation through the pregnancy which is more than can be accounted for on the basis of oxygen consumption (fig. 2).

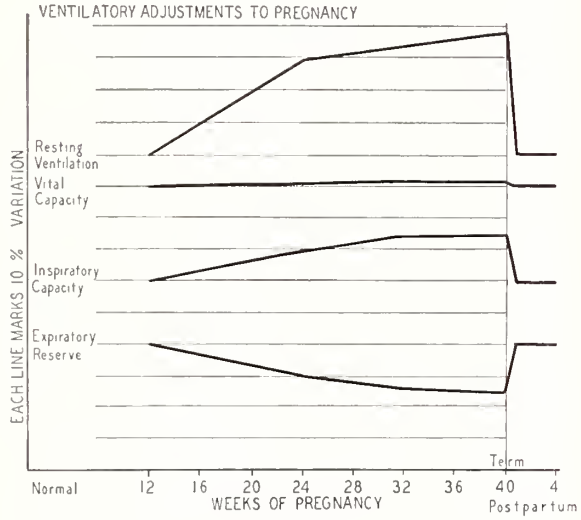

Fig. 2.

Thus the pregnant woman hyperventilates to a slight degree, and this is borne out by the slightly low CO$_2$ tension in the alveolar air and blood. It may be that this increased ventilatory effort produces the sensation of dyspnea which is so frequently noted by the normal pregnant woman. The high diaphragm often tends to displace the cardiac apex forward and to the left making it easy to mistake this normal variation for cardiac enlargement.

PHYSIOLOGIC ALTERATIONS DURING LABOR

Unfortunately there is lack of adequate observations of the cardiovascular and pulmonary changes that occur during labor and in the postpartum phase. Those studies which are available[1, 2] seem to indicate that the work of labor is discontinuous and related to the uterine contractions. Oxygen consumption parallels the frequency of uterine contractions. Thus it appears that contractions of average rapidity are equivalent to moderate muscular exercise, while frequent pains are equivalent to severe exercise. The heart rate rises at the initial portion of each contraction and then falls as the placental blood flow is reduced by the contraction. Between contractions the heart rate returns to a resting level (fig. 3). During the second and third stages of labor it is not uncommon to see a tachycardia of 100 to 120; however, postpartum this rapidly falls to a somewhat slower rate than normal. Some studies[2] seem to indicate that the heart output rises again immediately after delivery and does not fall to normal for from one to two weeks. This may allow some understanding of the all too frequnt occurrence of pulmonary edema in the immediate postpartum period. Studies to the present have failed to indicate why these patients do so much better with natural delivery than with Cesarean section though this clinical fact is indisputable.

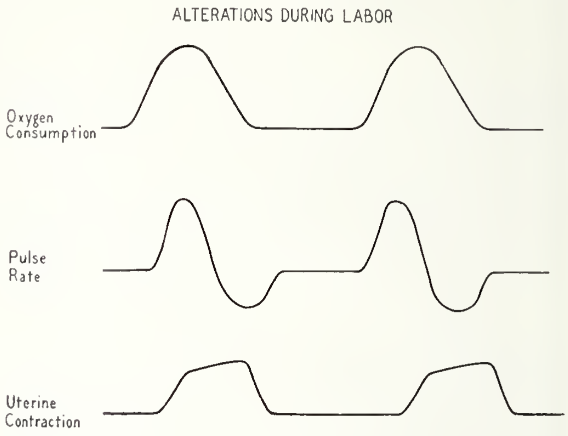

Fig. 3.

HEMODYNAMICS OF THE CARDIAC PATIENT

In the patient who has rheumatic heart disease with mitral stenosis, cardiac output is maintained by an increase in the pressure in the left atrium and thus the pulmonary capillaries.[4] The higher pressure is needed to force blood through the stenotic valve in the limited diastolic time. Increases in pulse rate reduce the diastolic filling time of the ventricle, thereby increasing pulmonary capillary pressure and lowering cardiac output. If the stenosis is marked there is usually a moderate to considerable reduction in cardiac output. In the studies of pregnant mitral stenotic cases by Werco[3] the cardiac output rises to near normal but this is accomplished only at the expense of further increase of pressure in the left atrium and pulmonary capillaries often to near their perfusion pressure. The pregnant woman with mitral stenosis is often close to pulmonary edema since she must maintain high pulmonary capillary pressures in order to sustain the high level of cardiac output necessitated by pregnancy.

There is inadequate information available to document the physiologic effect of pure aortic valve lesions, combined aortic and mitral lesions and congenital lesions in pregnancy.

CLINICAL INFORMATION

What are the causes of maternal death in cardiac disease in pregnancy? In almost all cases today death is attributable to congestive failure, with the death rate varying from 2 to 5 per cent. Almost half of these are due to acute pulmonary edema, many of which occur in the immediate postpartum period. Overall failure occurs in about 20 per cent of pregnant cardiac patients. The lowest death rates are in those series with lowest failure rate. It is clear that if congestive failure can be prevented, most of the deaths can be prevented.

What of the experience with infant mortality in cardiac patients? This is higher than in the noncardiac group due principally to stillbirth and premature birth. Fetal mortality is directly related to the presence or absence of cardiac failure, being approximately three times higher when maternal congestive failure is present than when the cardiac mother is compensated, and approximately four times higher in cardiac patients in failure than in normal pregnancy.

PROGNOSIS

The prognosis for pregnancy in cardiac disease bears a close correlation with the functional classification of the patients prior to their pregnancy and little relation to the intensity or type of murmurs. Patients in functional Class I and II have practically no increased mortality risk. Patients in functional Class III have approximately 5 to 10 mortality risk and those in Class IV, a 10 to 20 per cent risk. Other factors of importance imposing a poorer prognosis are (1) age over 35, (2) active rheumatic myocarditis, (3) congenital cardiac disease of the cyanotic group and (4) auricular fibrillation. Subacute bacterial endocarditis should no longer be regarded with the same fear as previously and in most cases can be successfully managed with appropriate antibiotics. The functional classification of the patient according to the New York Heart Association is by far the most accurate guide to prognosis.

Questions have been raised regarding the effect of pregnancy on the course of rheumatic heart disease. Present information seems to indicate that the pregnancy is a temporary complication and risk. There is no definite evidence that pregnancy survived damages the heart or that the course of the rheumatic process is accelerated. There is no justification for discouraging pregnancy in cardiac patients on the ground that if the patient survives, life may be shortened. Nevertheless, it seems clear that a woman's responsibilities and work load will increase with the burden of child care after the pregnancy unless some increased household assistance can be provided her.

DIAGNOSIS

Before discussing the clinical management of heart disease complicated by pregnancy a word of caution is necessary regarding the diagnosis of heart disease in the pregnant patient seen for the first time. The physiologic effects of normal pregnancy may give rise to symptoms and even signs suggestive of heart disease, such as dyspnea and ankle edema. The elevated diaghragm may produce evidence of apparent cardiac enlargement to palpation, percussion and even x-ray. On auscultatory examination, murmurs due to the high output may be as loud as grade III intensity. The heart sounds are normally accentuated. The diagnosis of valvular heart disease on the basis of a systolic murmur only, without other correlative signs is responsible for most of the erroneous diagnoses. The apical diastolic murmur of mitral stenosis is usually intensified by the higher output in pregnancy. On the other hand, the dislocation of the apex, the increase in breast size, and the localization of these murmurs may tend to make the problem more difficult. Certainly careful examination in the left decubitus position is essential in every pregnant woman before mitral stenosis can be excluded.

CLINICAL CARE

The subsequent discussion will show that there are a number of therapeutic variables which may require manipulation by the physician. In order to control these intelligently the patients must be seen often enough to assess the need for variation as the load of pregnancy changes. The frequency of visits will be increased according to the functional class of the patient and the increasing load of pregnancy. At each visit the physician must go through the following minimal routine in order to assure himself that he will detect the earliest evidence of heart failure, or of a complication that might lead to heart failure. He should question the patient about symptoms of intercurrent infections or of unusual fatigue, dyspnea with exertion, orthopnea, coughing after exertion or on reclining, hemoptysis or edema. He should remind the patient to report any of these symptoms at once. The physician should weigh the patient, being aware that sudden weight gain may mean subclinical edema. Physical examination should be done at each visit and minimally include (1) examination of the neck veins for distention; (2) determination of blood pressure, pulse rate and rhythm; (3) examination of the heart for size, increasing accentuation of P_2, development of gallop rhythm and changing murmurs; (4) examination of the lungs for rales; (5) determination of the presence of hepatomegaly, ascites or edema. In difficult cases it may be desirable to check the vital capacity and to fluoroscope the patient to observe any increasing pulmonary congestion. Therapeutic trial of mercurial diuretics should be used to confirm the clinical suspicion of failure.

MANAGEMENT

From the preceding broad statements of information regarding this problem one can now define sound methods for the management of these cases. It seems clear that one is dealing with two major uncontrollable factors in the pregnant cardiac patient. The first is the 24 hour a day demand that the pregnancy places on the maternal organism. As previously shown this follows a predictably variable pattern and, with the patient's basal requirements added to it, might be categorized as the minimum output necessary for the successful completion of pregnancy. The lack of controllability in this foundation requirement is based on legal, moral, and religious beliefs as well as a growing medical conviction that it is safer for the mother to continue pregnancy than to artificially interrupt it.

The second uncontrollable factor is the ceiling of cardiac outputs, the maximum possible for the particular patient under consideration, any demands beyond which will produce cardiac failure. Thus the flat ceiling and the variable floor are set and the amount of space between obviously depends upon the functional capacity of the pregnant cardiac patient, varying from wide in the Class I patient to narrow or perhaps nonexistant in a Class IV case.

Within this space must go the *total* additional output demands to which the pregnant woman is subjected. This includes all physical activity and emotional stress, the burdens which may be imposed by intercurrent infections, rheumatic fever, anemia, unusual sodium intake, high blood pressure, obesity, tachycardia, infusions and transfusions.

It is important to recognize that these stresses are potentially subject to variation by the physician, and these are the factors one must manipulate to manage the pregnant cardiac patient successfully.

Probably the most directly controllable variable is physical exercise and its counterpart, rest. Appropriately this may vary from little or no restriction in Class I to complete bed rest for Class IV patients. Always the variable load of pregnancy must be kept in mind, so that the exercise load will be diminished proportionally to the increased load of later pregnancy. Thus the restrictions need to be gradually imposed beginning about the twelfth week and increased to a maximum about the twenty-eighth week, being then maintained to term. Generally speaking the restrictions necessary are as follows: Class I cardiac patients require no exercise restriction but should be advised to take a one hour rest during the day; Class II patients should be advised to refrain from heavy physical activity and to obtain nine hours bed rest per night and a one hour rest during the day; Class III cardiac patients should refrain from even moderate exertion and should have ten hours bed rest per night as well as two additional hours rest each morning and afternoon; and finally the Class IV group should refrain from all activity and remain at bed rest.

The management of emotional stress requires particular emphasis and it is important that adequate time be taken to explain the situation to the patient and her family. The cooperation thus gained may be *the* critical factor in management. Confidence engendered by the physician and obstetrician and by their patient explanations and reassurance is highly important. Many women discover that they have heart disease for the first time during their pregnancy; it should be recognized that this disclosure is likely to be particularly upsetting to them. Individuals who are tense and anxious should receive sedatives if necessary to assure adequate rest and sleep. Tranquilizing agents should be used with caution near term because they may potentiate anesthetics and make shock and respiratory arrest more likely. Their effect on the fetus is not fully known.

Tachycardia must be controlled carefully or prevented if possible. If it is due to emotional factors, sedation and rest will generally control it satisfactorily. On the other hand, if it is the result of an increased need for cardiac output, digitalization and increased rest should be employed. If secondary to a febrile illness, the patient should be placed at complete bed rest and the cause of the fever treated vigorously both symptomatically and specifically. If the cause is paroxysmal tachycardia, appropriate therapy with digitalis, quinidine or pronestyl, or all, should be initiated according to the type of tachycardia. After conversion, appropriate prophylactic medication should be maintained throughout the remainder of the pregnancy and puerperium.

Hypertension should be vigorously treated since it obviously increases the cardiac load. Here again bed rest may be necessary until the elevated blood pressure is controlled by means of hypotensive drugs. The drugs of choice are rauwolfia, apresoline and the veratrum compounds. The ganglionic blocking drugs such as hexamethonium, ansolysen and inversine are contraindicated because of the incidence of ileus in the newborn.

Anemia should be preventable if the patient presents herself early in pregnancy. Experience indicates about 3.0 gm. drop in hemoglobin can be expected during pregnancy due to the fact that there is normally a greater increase in plasma volume than in red cell mass. This should be anticipated and oral iron administered early enough to prevent a hemoglobin drop to less than 11.0 gm. If the patient is not seen until later in pregnancy and the hemoglobin is below 10.0 gm. it may be desirable to give the patient carefully calculated doses of parenteral iron. Repeated small transfusions of packed red blood cells may be used but only with great caution because of the grave danger of inducing pulmonary edema; similar caution should be exercised with any intravenous infusion, particularly those containing sodium. In the uncommon macrocytic anemia, folic acid administration may be specific. Administration of vitamins in therapeutic doses is desirable when anemia is a problem.

Diet is an extremely important factor in the management of this problem. All pregnant cardiac patients should be rigidly controlled as far as weight gain is concerned; ideally this should be controlled to 15 pounds. The obese cardiac should be sufficiently restricted in caloric intake to lose weight during the pregnancy. A further dietary factor of the utmost importance is sodium intake; its control is of critical importance in the functional Class III and IV cases and important in all. All patients should be specifically cautioned against the uncontrolled ingestion of unusually salty foods as well as sodium containing medications such as anti-acid powders, sodium bicarbonate, and sodium salicylate. This is probably all that is required for the Class 1 patients; Class II patients should be restricted to 2.0 gm. of sodium per day from the twenty-eighth week of pregnancy to one week after delivery; Class III patients should be restricted to 1.0 gm. of sodium per day from the sixteenth week to two weeks post term, and Class IV patients should be restricted to 500 gm. of sodium per day from the time first seen to two weeks post term. The sodium content of the water may have to be considered in such a severe regime. The proper control of the sodium ion is one of the most important advances in the management of this problem. Even minor indiscretions of sodium intake may result in failure in the Class III and IV cardiac patients, therefore these patients and their families must be made to understand the situation clearly.

Most Class III and IV pregnant cardiac patients will be on digitalis but if they are not they should be digitalized and maintained indefinitely. If they are taking digitalis it is desirable to increase the dosage slowly to the point of minor toxic symptoms to make sure that the patient is attaining maximum digitalis effect. It is probably worth while to repeat this procedure every 8 to 10 weeks during the pregnancy. Class I or II patients on digitalis and having sinus rhythm should continue on their maintenance dosage. If auricular fibrillation is present, digitalis should be managed as for the Class III and IV patients. If the Class I or II patient is not on digitalis and is not fibrillating, digitalis need not be exhibited unless a complication arises.

Intercurrent infections of the respiratory tract are frequently the precipitating factor for cardiac failure in the pregnant cardiac patient. Prophylaxis is best accomplished by isolation of the patient from others having such infections. The patient and her family should be specifically cautioned in this regard. In the event that an infection should arise, complete bed rest is mandatory, maximum sodium restriction should be carried out, and specific and symptomatic treatment initiated so as to minimize cough, tachycardia and fever since the latter are particularly dangerous. Hospitalization should be recommended if the slightest suspicion of decompensation arises. Patients should be immunized against poliomyelitis routinely and, at this time, influenza (A, B, and Asian strains). To prevent beta hemolytic streptococcal infections she should also receive prophylaxis either orally with 200,000 units buffered penicillin daily in the fasting state or intramuscularly with 1,200,000 units benzathine penicillin (Bicillin) every four weeks. It should be noted that these regimes are inadequate to protect the patient from subacute bacterial endocarditis. In any condition associated with bacteremia streptomycin 0.5 gm. and procaine penicillin 500,000 units intramuscularly should be administered every 12 hours beginning if possible 24 hours before and continuing for 72 hours following the expected bacteremia. Since delivery is a potential cause of bacteremia, this antibiotic dosage schedule should be started at the onset of labor and continued for 72 hours following delivery.

All of these measures are aimed at preventing congestive failure for if that can be achieved then the patient is usually brought to term safely. Sometimes, in spite of the most meticulous care, patients will become decompensated but this is most frequently due to lack of understanding or failure to carry out the prescribed measures on the part of either the patient or the physician. The routine outlined for each office visit is designed to detect the earliest evidence of failure. It is mandatory that the physician institute maximum measures at once if failure is suspicioned or detected. The following is recommended: (1) the patient should be hospitalized and placed at complete bed rest; (1) digitalis should be instituted with a rapid acting preparation or digitalis dosage increased as the case may indicate; (3) mercurial diuretics administered, and (4) maximum sodium restriction continued or begun. If the decompensation is manifested by pulmonary congestion or edema, as is so often the case, then in addition (1) oxygen should be given, bubbled through ethyl alcohol; (2) morphine or pantopon administered; (3) aminophyllin 0.5 gm diluted to 20 cc. given slowly intravenously; and (4) rotating tourniquets applied. If improvement is not rapidly forthcoming phlebotomy with the removal of from 500 to 750 cc. of blood may be life saving. Once a patient develops evidence of failure, unless due to a completely reversable condition, she should remain at bed rest through the rest of the pregnancy utilizing optimal digitalis and diuretic dosage and marked sodium restriction to prevent further failure. Though this regime may seem drastic, adequate experience has proved its necessity in achieving the best results.

Up to this point it has been indicated that each patient has an unalterable ceiling of output beyond which demands would result in congestive failure. This was indeed true prior to the development of cardiac surgery which now has made it possible to increase this limit in those patients who have amenable lesions. This is the situation in a large group of pregnant cardiac patients who have predominant mitral stenosis. Surgery should not be entertained for Class I and II patients. Those with mitral stenosis in Class III and who are having sufficient symptoms before the twenty-eighth week to make it apparent that they may have great difficulty during the peak load of pregnancy should be considered for mitral commissurotomy. With few exceptions Class IV patients with predominant mitral stenosis should have mitral commissurotomy before the twenty-eighth week. Only under unusual circumstances should commissurotomy be done between the twenty-eighth and thirty-sixth week of pregnancy since the patient is under maximum cardiac stress. Such surgery should not be recommended from the thirty-sixth week to term since the load is a lessening one. Five pregnant women[6] with mitral stenosis have had mitral commissurotomy performed at the Saint Louis University Hospitals in a total experience of about 150 such operations. One of these patients died of cardiac arrest from a complication not directly related to the surgery. The other four and their babies all survived. In the general series the mortality risk in Class III patients is 4 per cent and in Class IV patients 16 per cent.

Every attempt should be made to carry the pregnant cardiac patient to term in order to take full advantage of the fall in cardiac output that occurs between the thirty-sixth and fortieth week. This usually gives sufficient margin to allow labor to occur without failure. Premature labor, either spontaneous or induced, superimposes the effort of labor on the ever present load of pregnancy before the latter falls from its maximum level at 36 weeks to about half that during the last four weeks of pregnancy.

Thus it is the goal of the physician to guide the pregnant cardiac patient through the full forty weeks of pregnancy carefully protecting that patient from failure by making the adjustments in environment, diet and medication necessary to bring the total load of the pregnancy as well as that of all other activities safely under the upper limit set by that patient's functional capacity.

LABOR

Labor should be alowed to proceed normally through the first stage, episiotomy and forceps being added during the second stage to minimize the heavy muscular effort.[7] The best anesthesia is local or regional, utilizing continuous caudal or pudendal block. It may be wise to avoid scopolamine unless it is known that that particular patient tolerates it without undue excitement. The third stage of labor should be conducted as usual except that oxytocis should not be used unless excessive bleeding occurs. During labor a sustained pulse above 110 per minute or respirations above 24 per minute should alert the physician to possible failure. Supplies and medications for appropriate management should be immediately at hand.

While it is not well understood on physiologic grounds it is quite clear that these patients do much better with normal delivery than they do with Cesarean section. The latter should not be employed unless there is a clear obstetric indication. It might be well to lean toward Cesarean section if the situation is such that a trial of labor would be recommended ordinarily.

Blood pressure, pulse and respiration should be checked hourly for 48 hours after delivery with instructions to notify the physician at once of any unusual change. Unless the patient is dehydrated, thiomerin, 2 cc. subcutaneously, should be given at the time of delivery and repeated 24 hours later to minimize the possibility of pulmonary edema. All medications and dietary restrictions should be continued without relaxation. The patient should be kept at bed rest except for passive leg exercises and given enough analgesics and sedatives to rest comfortably. Bed rest should be continued for not less than 48 hours in Class I and II patients and Class III and IV patients should remain at complete rest for one week and then gradually and cautiously ambulated. The great danger during this time is acute pulmonary edema and every effort should be made to avoid it.

From 95 to 98 per cent of pregnant cardiac patients can be carried successfully through pregnancy and labor on this strict regime. This can be accomplished only be meticulous attention to the details of the plan and the most rigid adherence to its principles.

35 N. Central Ave.

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UROLOGICAL MEETINGS

The Kansas City branch of the American Urological Association has announced 1958 meetings, which will be held at the Pine Room, Union Station, Kansas City, beginning with a 6:00 o'clock dinner. On January 22, residents in urology at the Kansas City General Hospital will present "Renal Ectopia." On February 26, Dr. Pratt Irby, Ft. Scott, Kansas, will speak on "Crystalluria." On March 26, "Pathology of Kidney Pelves and Ureters" will be discussed by Dr. Robert Lemire, Sedalia. Drs. Robert B. Bristow and John N. Martin, St. Joseph, will present "Traumatic Injuries of the Kidney" on April 23. Physicians are invited to these meetings.

Femoral Arteriograms

Use to Demonstrate Circulation of the Hip Following Neck Fractures of the Femur

A. E. McGINNIS, M.D.; J. O. LOTTES, M.D., AND FRED C. REYNOLDS, M.D., *St. Louis*

IN 1949 WE BEGAN a study of the circulation about the hip using femoral arteriography to demonstrate vessels that might contribute to the circulation of the head of the femur. In comparing the vascular pattern of the fractured hip with that of the opposite (unfractured) one, we had hoped to throw some light on the circulatory changes that resulted from the fracture or its management. If constant variation in the two hips was found, perhaps some prognostic value could be obtained.

The arterial circulation to the femoral head and neck has been studied by numerous investigators[1, 2, 3] who were interested in the anatomic aspects of the problem and in the relationship of the circulation to the healing of neck fractures of the femur. Most investigators agree that the principal blood supply to the femoral neck and head is derived from the medial circumflex femoral artery and from the obturator artery via its acetabular and foveolar branches.[4] Other authorities and various textbooks of anatomy also list capital nutrient arteries derived from the lateral circumflex artery, the interior and superior gluteal artery via the cruciate anastomosis, and at least one author mentions contributions by end branches of the femoral nutrient artery. In recent years detailed information has been gained concerning the interosseous portion of the vascular supply to the femoral head and neck by the injection of radioopaque materials in specimens obtained from autopsy. However, so far as we are aware, there have been few studies of any type carried out *in vivo*. Hult,[5] in 1953, injected contrast media directly into the head of the femur during nailings for neck fractures and, by visualizing the status of the venous system, attempted to determine the prognosis, postulating that the status of the venous drainage reflected the changes in the arterial system. Rook,[6] in the same year, injected dye into the femoral arteries of patients with neck and intertrochanteric fractures, assuming that poor filling of the larger vessels including the medial circumflex would indicate interference with the finer capsular arteries, thus forecasting a poor prognosis. Neither of these papers reports vascular studies done on the unaffected side for comparative purposes. Missbichler,[7] in 1955, using 50 per cent dijodone, reported detailed arteriographic studies on normal hips and a variety of diseased hips including neck fractures. In each case the affected hip was compared with the opposite side. Particular attention was directed to the posterior collum branch of the medial circumflex artery and the superior and inferior synovial arteries. The posterior collum branch was identified as that vessel which arose from the medial circumflex in the region of the lesser trochanter, passed superiorly and posteriorly to the neck of the femur and gave rise to the superior synovial artery. It was found to be consistently filled on the normal side. It is also known as the ascending branch of the medial circumflex artery.

Since serial x-rays were taken at from one to five seconds, some idea of the rate of flow through these vessels could be gained. Missbichler concluded that three changes may result in the vessels supplying the femoral head and neck: dilatation, decreased flow and arrested circulation; and that these changes were considered pathologic

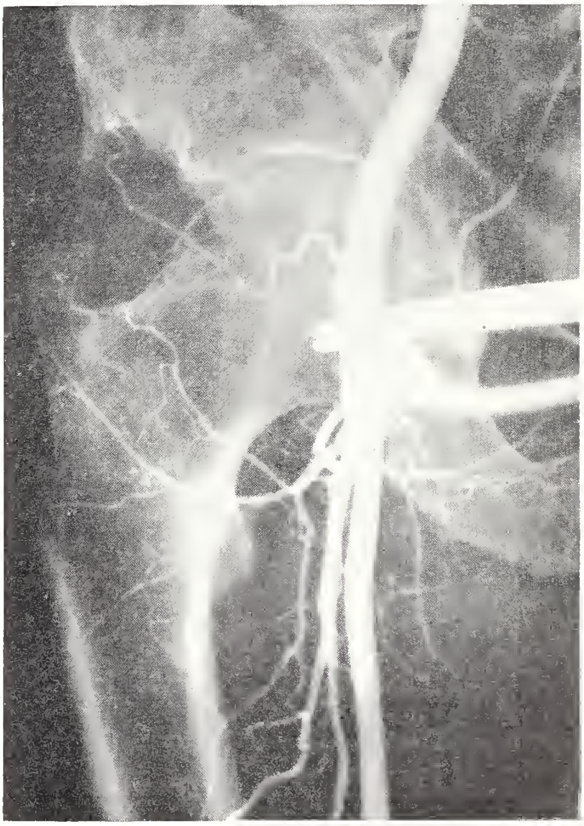

Fig. 1. Adequate visualization of femoral artery and branches is demonstrated in this arteriogram.

From the Orthopedic Division of the Department of Surgery, Washington University School of Medicine, St. Louis, Missouri.

when not accompanied by a similar pattern on the opposite side. It seemed to us that anatomic variation and arterial disease could produce bilaterally similar alterations in the circulation which, though abnormal, was adequate to maintain nutrition to the head until submitted to unusual stress or injury.

METHOD

Under cutaneous local anesthesia, 50 cc. of 35 per cent myokon was injected into the femoral artery via an 18-gauge arterial needle. Puncture was made just below the inguinal ligament. Pressure sufficient to maintain a steady flow of dye for approximately 5 seconds was employed. A tourniquet was not placed below the area of injection. X-ray films were taken when all but 5 cc. of the dye had been injected (fig. 1). In none of our patients did we encounter a serious untoward reaction.

In the initial group of nine patients, bilateral arteriograms were done in all but one case. A bilateral arteriogram was done in all three of the recent patients. All cases had sustained displaced intercapsular fractures of the femoral neck and, with one exception, had closed reduction and internal fixation with a Smith-Peterson nail either alone or combined with an autogenous fibular bone graft (see table 1).

It can be seen from the table that practically all patients demonstrated evidence of impaired or altered circulation on the fractured side (fig. 2).

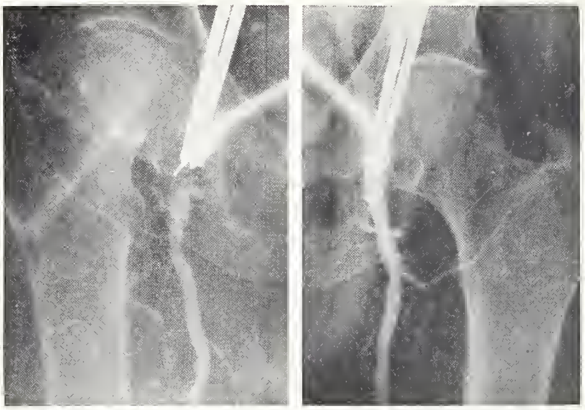

Fig. 2. Discontinuity of posterior collum branch can be seen on the involved side.

However, in one patient there appeared to be no alteration as compared to the sound hip; and in two cases similar changes which could possibly be interpreted as impairment of flow were present on both sides. In no instance could we positively identify an inferior synovial artery, and in only one instance was a vessel visualized which could have been the anterior synovial branch of the

TABLE 1

No.	*Patient*	*Age*	*Race-Sex*	*Time Nailing to Arteriography*	*Circulatory Changes*	*Follow-up*		*Result*
1	T. L.*	67	WM	9 Mo.	Tortuosity Post. Collum Br.	9 Mo.	Expired	Resorption of neck but apparent healing
2	V. A.	73	WF	10 Mo.	Discontinuous flow Post. Collum Br.	10 Mo.	Expired	Resorption of neck but apparent healing
3	S. W.	76	WM	1 Mo.	Discontinuous flow Post. Collum Br.	6 Yrs.		Patient ambulatory and asymptomatic
4	T. L.	74	WM	2 Wks.	Incomplete filling Post. Collum Br. bilaterally	5 Mo.	Expired	Non-union and beginning aseptic necrosis
5	J. K.	64	WM	2 Wks.	No change bilaterally	18 Mo.	Expired	Possible early aseptic necrosis
6	J. K.	77	WM	2 Wks.	Increased generalized vascularity on Fx side	2 Yrs.	Expired	Apparent healing
7	J. P.	78	WM	3 Wks.	Non-visualization Post. Collum Br.	30 Mo.		Non-union and aseptic necrosis requiring prosthesis
8	P. M.	71	WM	2 Mo.	Poor visualization Collum Br. bilaterally Increased vascularity on Fx side	17 Mo.	Expired	Delayed union with varus deformity
9	L. M.	69	WM	1 Mo.	Poor visualization of Post. Collum Br. on Fx side	18 Mo.		Aseptic nercosis
10	G. W.	57	WF	4 Mo.	Non-visualization of Post. Collum Br. on Fx side	5 Mo.		Aseptic nercosis
11	C. E.	81	WF	Pre-Op	Discontinuous flow Post. Collum Br. on Fx side	2 Mo.		Healing with viable head to date
12	A. K.	72	WM	Pre-Op	Dilatation of Post. Collum Br. on Fx side			Primary prosthesis

* Unilateral arteriogram.

lateral circumflex artery described by Howe.[8] Figure 3 is a composite drawing from arteriograms.

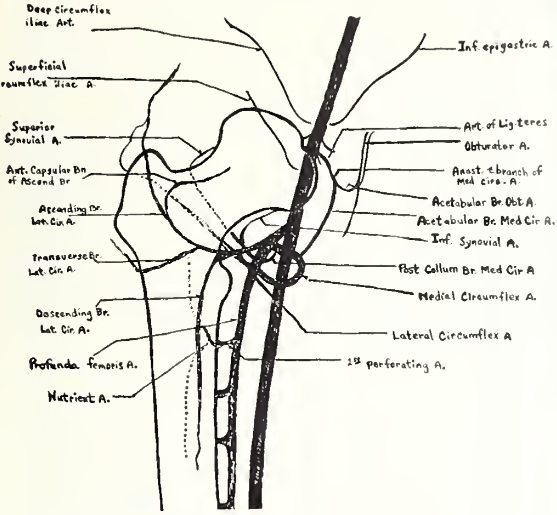
Deep Circumflex iliac Art.
Superficial Circumflex iliac A.
Superior Synovial A.
Ant. Capsular Br of Ascend Br
Ascending Br. Lat. Cir. A.
Transverse Br. Lat. Cir. A.
Descending Br. Lat. Cir. A.
Profunda femoris A.
Nutrient A.
Inf. epigastric A.
Art. of Lig. teres
Obturator A.
Anast. c branch of Med circ. A.
Acetabular Br. Obt. A.
Acetabular Br. Med Cir A.
Inf. Synovial A.
Post Collum Br. Med Cir A
Medial Circumflex A.
Lateral Circumflex A
1st perforating A.

Fig. 3. Composite drawing from arteriograms and anatomical studies.

Vessels within the bone were not visualized in any case. We have never seen visualization of a nutrient vessel in any arteriogram. Just why this occurs is not known. This meant that we were primarily dependent upon visualization of the posterior collum branch and the general vascularity in the region of the hip joint, as far as making a statement regarding the status of the circulation is concerned.

The follow-up period ranged from five months to six years. Of the nine early cases, six are dead, one is living and well, and the other two were followed for 18 and 30 months before being lost to follow-up. Of the three later cases, one had a primary prosthesis, one is showing early signs of aseptic necrosis, and the remaining case is healing satisfactorily two months after operation.

DISCUSSION

We were particularly interested, of course, in visualizing those vessels which supply branches to the femoral head and neck and, if possible, in visualizing the actual interosseous arteries themselves. However, there was no evidence of dye in any interosseous arteries. Identification of smaller vessels would perhaps be possible if x-ray examination in two planes were done. This was not possible with the apparatus available.

In only two of the 12 cases was the arteriogram done before operation. One of these (figs. 4 and 5) showed enlargement of the posterior collum branch on the injured side, but since this fracture was treated by a prosthesis, no follow-up is available. The other case revealed alteration suggesting a decrease in flow of this branch on the injured side. This patient at two months shows no complication of healing. Studies on the remaining 10 patients were carried out in the postoperative period (table 1). Studies, with one exception, were on patients at the St. Louis City Hospital. In spite of our efforts, we were not able to get them back for regular follow-up studies so that end results of the hip fracture are not known in two cases, and another is too early to tell. However, the remaining nine were followed long enough to be fairly sure of what would happen. One of these (Case 6) had increased generalized vascularity (fig. 6) on the nailed side. This fracture united and there was no evidence of aseptic necrosis two years after operation. The remaining eight cases showed evidence of decreased flow of the posterior collum branch. One of these (Case 3) obtained union without complications and was symptom-free six years after operation. The other seven all had complications of either aseptic necrosis or nonunion, or both.

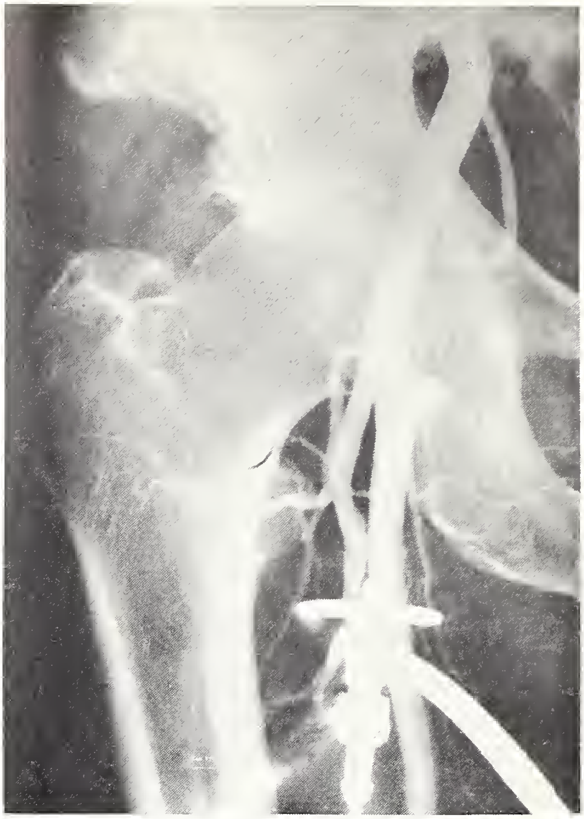

Fig. 4. Comparison with opposite hip in same patient shows moderate dilatation of posterior collum branch on fracture side.

No conclusions of a prognostic nature concerning alteration of the arterial circulation about the hip, following fracture or fracture and operation, can be drawn from this small series of cases inadequately followed. It does suggest that when the circulation appears equal to or greater than the uninjured hip the chances are better for union and a viable head. Since the technic and determination of the arterial pattern is now fairly clear, a much larger and more carefully controlled series would perhaps throw some light on this problem.

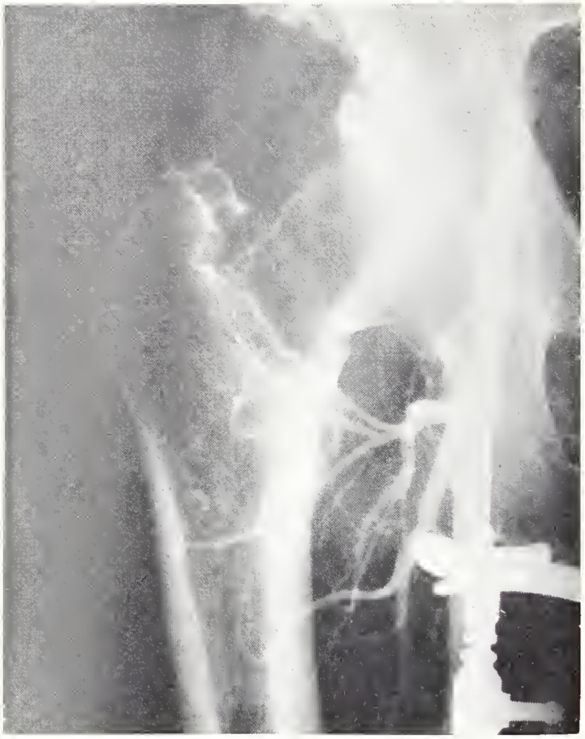

Fig. 5. Opposite hip of figure 4.

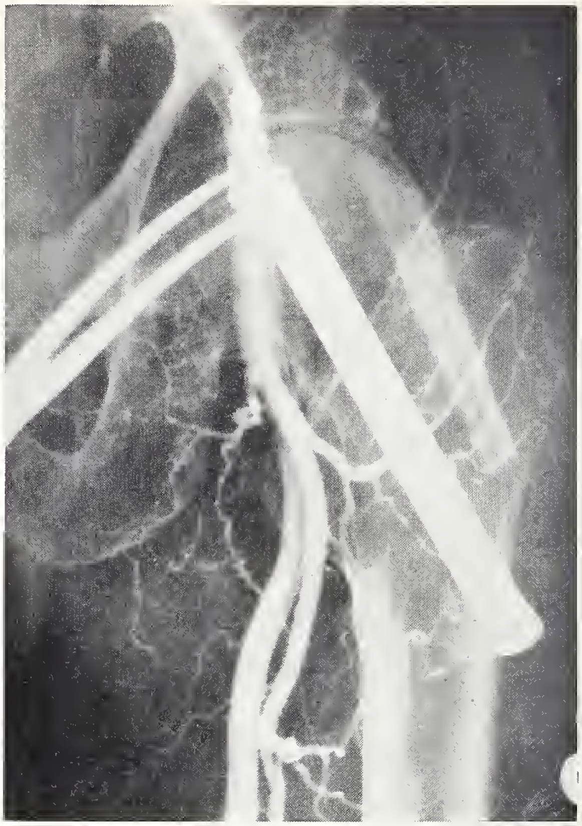

Fig. 6. Marked increase in vascularity and tortuosity of vessels on the nailed side is evident.

SUMMARY

Femoral arteriograms have been obtained in 12 patients who suffered intracapsular fractures of the femoral neck. Eleven of these arteriograms were bilateral, so the uninjured hip could be used for comparison. In nine cases the studies were done following internal fixation of the fracture. Preoperative studies were done in the remaining three. There were no reactions or complications to the procedure. The arterial patterns in these patients were similar to those described by Missbichler. In attempting to estimate the circulation to the femoral head we have paid particular attention to the posterior collum branch of the medial circumflex femoral artery.

A large series of carefully followed cases in whom bilateral arteriograms have been done preoperatively and postoperatively, utilizing anterior-posterior and lateral views, is required before definite conclusions can be drawn.

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Dental Rehabilitation of Handicapped Children

With the Aid of General Anesthesia

LEWIS J. RATTNER, D.D.S., AND M. E. GREER, D.D.S., *Kansas City*

THE DENTAL SERVICE of the Children's Mercy Hospital has instituted a routine of complete oral rehabilitation for handicapped children with the aid of general anesthesia.

Preoperative radiographs and clinical examinations are utilized for diagnosis. Silver amalgam is the restorative material of choice wherever possible. Badly broken down teeth that are not pulpally involved are restored with a preformed stainless steel crown or an orthodontic band to maintain tooth form. When caries extends into the pulp but without apical manifestations present in the radiograph, a vital pulpotomy is performed. Teeth exhibiting radiographic evidence of pulp changes or so badly broken down as to be unrestorable are extracted. Space maintainers are placed at a succeeding visit to insure proper eruption of succedaneous teeth. This work is summarized in table 1.

The following criteria are applied for patient selection: (1) severe mental retardation, (2) cerebral palsy, (3) muscular dystrophy, (4) congenital heart defects, (5) post-encephalitis, (6) completely recalcitrant children and (7) rampant caries in the very young.[1]

The patient is admitted to the hospital on the dental service but receives a thorough physical examination by the pediatric staff before being admitted. Upper respiratory infection is a common reason for cancellation. The laboratory workup includes urinalysis, complete blood count, clotting and bleeding times and, when indicated, physical examination and a chest radiograph.

Preoperative sedation consists of atropine, for reduction of oral secretions during operation, and seconal, the dosage as compatible with age and weight of child.

Various combinations of anesthetic agents have been used. Induction is by open drop divinyl ether for young patients and intravenous sodium pentothal for older children. Narcosis is maintained by ethyl ether and oxygen. All patients are intubated nasopharyngeally and the throat is packed with gauze to avoid aspiration or ingestion of foreign material.

All general anesthesias are carried out in accord with standard hospital operating room procedures.[2] This includes a surgical scrub, scrub suit, cap, mask and gloves. Sterile technic is followed throughout as compatible with dental operative procedures.

The patient is examined after recovery from anesthesia and also the following morning. If no complications have appeared the patient is released through pediatrics as a safeguard against any cross-infection that might have been acquired during hospitalization.[3] The average stay in the hospital is two days.

A summary of general anesthetic dental patients at the Childlren's Mercy Hospital for a six month period shows 18 patients (12 male and 6 female). Seven were under 5 years, seven were between 6 and 10 and four were over 11 years of age.

The duration of productive operative time varied from three minutes for extraction of teeth to one and one-half hours for restorative dentistry.

Services performed are shown in table 1.

TABLE 1
SERVICES PERFORMED

Service	*No. of Patients*	*Range*	*Median*
Extractions	14	1-20	11.1
Surfaces restored	11	2-14	10.4
Full crowns placed	4	2-8	3

SUMMARY

The dental rehabilitation of handicapped children with the aid of general anesthesia is presented.

2. Close cooperation between dental and pediatric services is stressed.

3. A summary of patients operated on and services performed is presented.

10th Street and Troost Avenue.

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Fellows in Pediatric Dentistry, the University of Kansas City, School of Dentistry, Pedodontic Interns, Children's Mercy Hospital of Kansas City, Missouri.

Case Report

Cretinism in a 37 Year Old Female

THOMAS SPENCER HOPKINS, M.D., *Sedalia*

In 1871, Dr. C. H. Fagge of Guy's Hospital first reported cases of cretinism which he called sporadic cretinism and compared their similarity to endemic cretinism. There has been some controversy as to the terms endemic and sporadic cretinism, but it seems reasonable to recognize the two terms at least for purposes of classification. Indeed, for practical clinical purposes it is convenient to distinguish between the endemic cretin (Swiss variety) and the sporadic which occurs occasionally in a nongoitrous region in the United States.

Endemic cretinism is the product of generations of goitrous families. It is apparently produced by chronic iodine deficiency as in certain endemic goiter regions (such as in Switzerland), and tends to occur in families with goiters which may or may not be associated with hypothyroidism. Deficiency of iodine during gestation probably promotes goitrogenesis and hypothyroidism. Endemic cretins frequently exhibit large thyroid glands.

The cause of sporadic cretinism is less definite. It apparently results from thyroid agenesis. The parents and siblings of patients with sporadic cretinism usually have normal thyroid glands. The condition apparently results from a defect in the development of the thyroid or a congenital defect of an enzyme necessary for iodination of thyroid hormone. Except for the difference in etiology and thyroid gland, endemic and sporadic cretinism are alike.

The case presented is undoubtedly one of sporadic cretinism. The etiology is, in the final analysis, unknown. Autopsy reports on cretins have varied from tiny rudimentary islets of thyroid tissue with fibrous tissue at the anatomic site of the thyroid gland to complete absence of the thyroid. In addition, the pathologic findings have been essentially that of adult myxedema together with delayed ossification of bones, delayed union of epiphyses, delayed dentition, hypoplasia of the brain and hypertrophy of the anterior pituitary.

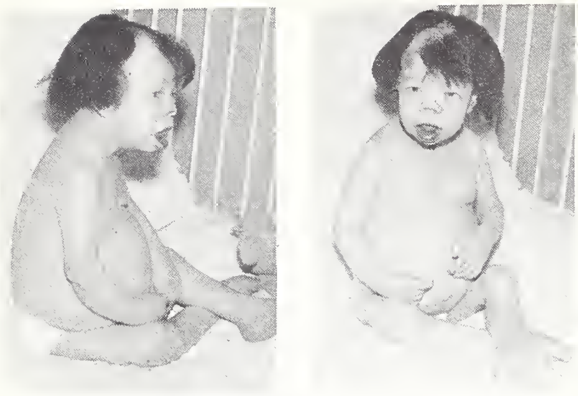
The onset of sporadic cretinism is insidious and symptoms are usually not recognizable until about the third month. An explanation for the delay is the possibility of thyroid secretion from the placenta which lasts for a time and delays onset of symptoms. Diagnosis at the earliest possible date is of great importance because upon early diagnosis hangs the success of treatment. Cretinism should be considered in any infant showing delay in all phases of development. Suggestive manifestations are dwarfism, delayed osseous development, mental retardation, slow mental and physical activity, bradycardia and hypothermia. Any physician caring for an infant should be conscious of the possibility. Unexplainable changes in behavior or appearance should make him think of it. It is possible to make the diagnosis by physical examination, PBI, radioactive I^{131} uptake, x-ray studies of the bones and the presence of hypercholesterolemia. The most important differential diagnosis to be aware of is that of Mongolian idiot and juvenile myxedema.

The success of treatment of the cretin depends upon the age at which it is instituted and maintained. If it is begun in the infant and adequately maintained throughout life, the chance of normal development is fair, even in the face of a totally atrophic thyroid. On the other hand, if treatment is not started until the cretin is several years old, the chances of much if any therapeutic effect is practically nonexistent. The drug of choice is thyroid and has to be given depending upon age, weight, height and clinical response. An average dosage is 6 mg. daily at age 2 to 4 months; 12 mg. daily at age 4 to 12 months; 25 to 50 mg. daily at age 12 to 24 months; 30 to 90 mg. daily at age 2 to 4 years; and 180 to 360 mg. daily at age 6 to 12 years. In older cretins, the most skillful attempts at treatment may result in increased irritability and difficulty in general management. In fact, treatment later in life may produce changes which are more undesirable than desirable. It does not improve intelligence and has been reported to cause thyrotoxicosis.

REPORT OF CASE

This was the first admission to the Kansas City General Hospital for this 37-year-old white female. Chief complaint was abdominal distension. Informant was the patient's mother who had cared for the patient all of her life. The patient was well until two hours prior to admission when she attempted to have a bowel movement. While straining at stool, she uttered some cries that indicated to the mother that she was having pain. The mother stated that she did not become alarmed initially over the patient's large abdomen because this had been characteristic of her daughter; also constipation had been of frequent occurrence requiring repeated use of enemas.

Past History—Patient had not been seen by a physician for 15 years. She had chickenpox and pertussis between ages 1 and 4 and an "abscess" of the throat at age 6; no operations or injuries. Patient had walked for a few years beginning at age 6 or 7. She had been maintained on thyroid extract from age 2 to 7 but this had been stopped because no effect of any kind had been noted.



Family History—Four brothers and sisters and mother and father are in good health. There is no history of cretinism or familial disease in their families.

Physical Examination—Female cretin measuring 38 inches in length and weighing 44 pounds in marked state of shock. No blood pressure was obtainable; no radial pulse (apical rate 100 and regular); temperature (rectal) 95 F. The skin was cold and clammy and cyanotic with large areas of mottling. Lips and tongue were markedly cyanotic. The neck had no masses palpable.

The heart had regular sinus rhythm; no murmurs were heard and there was no enlargement. The lungs were clear. There was marked abdominal distension; hypertympanitic percussion note; absence of bowel sounds; no visible peristalsis; no organs or masses palpable. The rectum was full of soft brown feces; no mass.

The following distinguishing marks of cretinism were present: dwarfism; coarse, sparse and dry hair; eyes wide apart; husky, deep voice; broad flat nose; thick lips with protruding thick tongue; eyelids puffy and wrinkled; head large in comparison to the body size; neck short and thick; hands and feet puffy, short and broad; abdomen large and protuberant; skin dry, cool, pale and thick; and sexual infantilism.

The clinical impression was that of acute intestinal obstruction due to high fecal impaction with shock secondary to obstruction, and cretinism. The patient was treated for shock initially. A high warm saline enema was given which produced immediate evacuation of large amounts of fecal material and gas with disappearance of shock. Enemas were continued with doses of prostigmine and magnesium sulfate. A large rounded firm, hard mass was palpable in the right lower quadrant which clinically and radiographically was felt to be a fecal concretion in the cecum. With repeated enemas, the mass gradually disappeared. The patient did well while in the hospital, playing with her dolls and having much attention from the ward personnel. Her mentation was compatible with that of an idiot or imbecile. She required the continual use of frequent enemas and rectal tube to relieve recurrent abdominal distension. She was given ferrous sulfate while on the ward; no thyroid was given.

Laboratory data.—Hemoglobin, 9.1 gms. or 58.7 per cent; white blood count 7,800 with normal differential; urine tests within normal limits; cholesterol 230 mg.; esters 70.4 per cent; indirect bilirubin 0.6 mg.; serology negative; Na. 141.5 mEq/1; Cl. 112.9 mEq/1; blood sugar 110 mg.; nonprotein nitrogen 34 mg.; calcium 4.55 mEq/1; phosphorus 1.41 mEq/1; total proteins 6.20 gms.; albumin 4.25 gms.; globulin 1.95 gms.; A/G ratio 2.18; K 4.0 mEq/1; 17-keto steroids 2.8 mg. per 420 cc. urine; PBI 3.3 mcg.; Thorn test 422 eosinophils with fall to 177 in four hours.

X-rays of the skull, chest, pelvis and extremities were reported as showing enlargement of the sella turcica with some erosion of the dorsum sellae and failure of bony maturation with a bone age of approximately 12 years.

SUMMARY

This paper has not been written for the purpose of making an exhaustive review of the literature on cretinism. It is presented as a most interesting example of sporadic cretinism and to review some of the basic concepts regarding cretinism and its treatment. Of the many physicians who saw this case, no one could remember having seen a cretin of this type of age 37.

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MEDICAL EXAMINERS REAPPOINTED

W. O. Finney, M.D., Chaffee; Harry A. Klein, M.D., St. Louis, and James W. Willoughby, M.D., Liberty, have recently been reappointed to the Missouri State Board of Medical Examiners. Other appointments on the Board are G. R. Wempe, M.D., Maryville; Edwin F. Vitt, M.D., St. Louis, and Walter S. Sewell, M.D., Springfield. The officers of the Board are W. O. Finney, M.D., president; Walter S. Sewell, M.D., vice president, and James W. Willoughby, M.D., secretary-treasurer.

A.M.A. INDUSTRIAL HEALTH MEETING

The 18th annual Congress on Industrial Health, sponsored by the American Medical Association's Council on Industrial Health, will be held January 27 to 29 in Milwaukee at the Schroeder Hotel. It is expected that 500 representatives of labor, industry, governmental agencies and the medical profession will attend. Cooperating in the meeting will be the State Medical Society of Wisconsin, the Medical Society of Milwaukee County, the Wisconsin chapter of the American Academy of General Practice and the Central States Society of Industrial Medicine and Surgery.

Subjects to be covered are public and professional relations in occupational health, evaluation of disability, occupational skin diseases and low back pain as it is related to employment. Guest speaker at a banquet in connection with the meeting will be Gunnar Gundersen, LaCrosse, Wis., president-elect of the American Medical Association.

Special Article

Asian Influenza and Vaccination Procedure

WILLIAM C. ALLEN, M.D., *Glasgow*

IT HAS BEEN REPORTED that a new wave of the Type A influenza, more popularly known as Asiatic or Asian flu, has hit again in the Far East and may have started its second trip around the world. Like Sputnik, it probably will circle the world a few times before eventually dying out.

So far the influenza has been mild in the United States as compared with the 1918-19 flu epidemic which killed 800,000, but it has been more serious than was anticipated.

In Missouri there was a three-fold increase in deaths from pneumonia and other complications arising from influenza during November, as compared with November last year.

Thus it is recommended that vaccination with the influenza vaccine continue.

Apparently from all reports the original 200 CCA unit Asian flu vaccine given in doses of 1.0 cc. subcutaneously is only about 50 per cent effective. Thus future Asian flu vaccine will contain 400 CCA per cc. Also polyvalent influenza vaccine is becoming more available and it contains the usual types of A and B influenza vaccine plus 200 CCA units of the Asian vaccine for each 1.0 cc.

Several questions arise in the mind of the physician as to how, how much and when the vaccine should be administered to be most effective.

Due to the multitude of variables it is difficult to set up definite procedures. However, Dr. H. M. Hardwicke, acting director of the Missouri Division of Health, makes the following recommendations from the many studies that have been made:

Using the 400 CCA unit of Asian influenza vaccine, 1.0 cc. subcutaneously is recommended for adults who presumably have not already had Asian flu.

Children 5 through 12 should receive the same dosage (1.0 cc.), but probably divided into two equal doses.

Children under 5 should receive two doses of 0.1 cc. each, at an interval of from one to two weeks.

For those people who already have received 0.1 cc. of the 200 CCA intradermally and those who are special risks because of age, pregnancy or chronic illness and have received 1.0 cc. of the 200 CCA subcutaneously, an additional 1.0 cc. of the 200 CCA unit dose is recommended. Naturally, 0.5 cc. of the new 400 CCA could be substituted for this second dosage.

The laboratory and epidemiological data indicate that the upper respiratory illnesses experienced recently in Missouri are predominantly Asian influenza. For this reason, it would be reasonable to give polyvalent vaccine to patients who recently have had influenza.

If polyvalent vaccine is to be given to a person who already has received 1.0 cc. if the 200 CCA Asian vaccine, it is recommended that an additional 1.0 cc. of the polyvalent vaccine be given. However, two doses of 1.0 cc. each probably would result in better protection.

This may be more confusing than enlightening. But in view of the threatened second influenza epidemic and a greater supply of vaccine (both Asian and polyvalent), it is hoped the epidemic may be suppressed somewhat if, and when, it hits again. It is estimated that at least 500,000 Missourians have had the Asian-type influenza so far.

Dr. Allen, chairman of the Civil Defense Committee, has represented the MSMA in various meetings called by the Division of Health on the Asian flu.

A.M.A. PLANS NEW EXHIBITS

To reach more Americans with authentic up-to-date health information, the A.M.A.'s Bureau of Exhibits has announced a number of major plans for 1958. A new exhibit titled "How We Breathe" will be ready for bookings after January 1, 1958. This exhibit will present a three dimensional model of the organs involved in breathing—the nose, pharnyx, larynx, bronchial tubes and lungs. Other features include actual preserved human lungs; a unit to demonstrate the mechanism of breathing and the part played by the diaphragm and rib cage, and a section showing the exchange of oxygen from the lungs to the blood and carbon dioxide from the blood to the lungs.

Two other exhibits also are well along in the planning stages for next year, the brain and nervous system featuring a human brain embedded in plastic, and the endocrine system. Also small editions of the popular "Life Begins" exhibit are being built, incorporating most of the information in the large exhibit but displaying only one fetus embedded in plastic. Other fetuses in varying stages of development will be shown pictorially. This type of exhibit is extremely lightweight, therefore accessible to medical societies far from Chicago.

DR. CARL V. MOORE TO CANCER BOARD

Dr. Carl V. Moore, professor of medicine at Washington University Medical School, has been named as an advisor to the National Cancer Institute. He is a member of the new 6-man board of scientific counselors that will guide the operation of the Federal agency.

The board will be headed by Dr. Wendell M. Stanley of the University of California.

President's Page

The MSMA's constitution and by-laws are included in this issue, partially as a result of your interest in the talks I have been making to many of your societies. There also have been several changes since the last printing in 1952.

During my talks, I have touched briefly on the structural makeup and operation of the state organization. Many physicians, for example, have expressed amazement they could participate in the House of Delegates during the annual convention, if they wished.

All of the MSMA meetings, such as Council and House of Delegates, naturally, are open to all members. Members are invited to attend and express themselves. Voting, of course, is restricted to the duly elected delegates.

Others questioned just what a delegate to the House of Delegates does? Some wanted to know more about the relationship between the House of Delegates and the Council.

The answers to all of these and any questions you might have are contained in our written guideposts—the Association's constitution and by-laws.

I personally hope that each one of you will take the time to look them over before our annual convention April 13-16 in St. Louis.

In this day of pressure groups, strong unions and trade organizations, it becomes doubly important that we keep our own Association strong and make it even stronger. This can only be accomplished through an informed membership that will make itself heard through the democratic processes provided for in our organization.

Just as the American Medical Association looks after our problems at the national level, the MSMA is our voice at the state level.

Through a thorough reading of our rules and regulations, many of you might decide it was time you took a more active part.

I hope so. We can't have too many good men offering their advice and time. Too often we think:

"Oh! Let the other fellow do it, I'm too busy with my practice!"

The growing power of the federal government is another reason it is vitally important we present a strong front to prevent further encroachment on the medical profession. No one is going to do it for us.

There will be many vital issues presented at the April session of the House of Delegates. Be sure that your viewpoint is represented there.

Walter S Sewell M.D.

EDITORIALS

100th Annual Session

The 100th Annual Session of the Missouri State Medical Association will convene April 13, 14, 15 and 16, 1958, at the Sheraton-Jefferson Hotel, St. Louis. The 100th Anniversary of the Association was celebrated in 1950 but omission of meetings during the Civil War years brings the 100th session this year.

The session will follow the general pattern of former years, the meeting opening with the House of Delegates at 1:30 o'clock on Sunday, April 13. While only duly elected delegates may vote in the House of Delegates, the sessions are open to all members. The House will reconvene on Monday afternoon at 4:30 o'clock and again on Wednesday at 1:30 o'clock.

The scientific program, near completion, will include instruction courses, similar to those which were enthusiastically received at the 1957 Annual Session. These will begin the sessions on Monday and Tuesday and the number attending each course will be limited so that free discussion will be possible. Several scientific presentations will be given by guest speakers and other subjects allied to medicine will be included. Dr. Gunnar Gundersen, La Crosse, Wis., President-Elect of the American Medical Association, will discuss "World Medicine and Its Influence for Peace." One discussion on "Medicare" will be included in the general program.

A Clinical Pathologic Conference will be presented on the Monday afternoon program and a Grand Rounds will be a part of the Tuesday afternoon session.

More specialized panels and presentations will make up the Wednesday morning program.

The Annual Banquet in Honor of Past Presidents will be held on Tuesday evening of the session.

Sputniks Herald New Era in Science

Russia's Sputniks have jarred the American public and resulted in a new interest in all things scientific.

Newspapers and civic leaders are calling for the revamping of school programs to turn out more and more scientists. Politicians also are demanding drastic changes in Washington on various scientific projects.

Just what will be accomplished is hard to predict. But one thing seems to be certain, the world appears to be entering a scientific era fully as dynamic as the Industrial Revolution that came with the steam engine.

New developments range from an Air Force research plane reported to go 4,700 miles an hour to a new cheap system to make fresh water from sea water.

Obviously the world also is going to have to produce political leaders with wisdom and courage to keep us on the right track. As George Kennan, former ambassador to Moscow, commented after the Sputniks started spinning:

"Our problem is to see that they (the Russians) do not have the will or incentive to destroy us."

If peace prevails, it is impossible to predict what discoveries will come in the next century.

The human need will be endless. It is estimated that in 100 years there will be 7 billion persons on the earth. The population now is more than 2½ billion—this figure, by some estimates, means that one in every 20 human beings who ever walked on the earth is alive today.

The swelling population will put increased pressure on science for new sources of energy and food. Medical advances also will be rapid. Doctors, undoubtedly, will find a way to control heart attacks and cancer. Countless discoveries will add to the span of man's life. It is hoped that the puzzles of the human mind and human behavior will be solved to make man's added years happier and more productive.

Not all the demands, however, are for the future. Some of them, such as housing, call for an immediate answer. United States with 172 million citizens is growing at more than 3 million people a year, equivalent to adding a city larger than Boston every 12 months. As Perry Prentice, editor and publisher of *House & Home* magazine, said:

"It took us nine generations to house 90 million people on 3 million square miles of land. Now in one generation we propose to house an additional 90 million on 10,000 square miles of land."

So far, physicians and scientists have kept ahead of the prophets of doom such as the political economist Thomas Robert Malthus, who predicted man could never produce enough to keep up with the growing population. All he could see in the early years of the 19th century was misery and hunger for the poor.

Musings of the Field Secretary

"The Staff Physician and the Hospital Administrator." Take this as a subject for discussion at a medical society meeting and see what happens. One might anticipate all sorts of remarks, accusations and recommendations, depending upon who is present and with what experience. However, after all is said and done, there still remains the fact that there must be understanding and willing cooperation between the staff physician and the hospital administrator for patient welfare.

This axiom was well explored at the October 9 meeting of the St. Louis County Medical Society. A panel of well selected participants discussed the subject under consideration before an attendance of some 75 people, including physicians and hospital personnel.

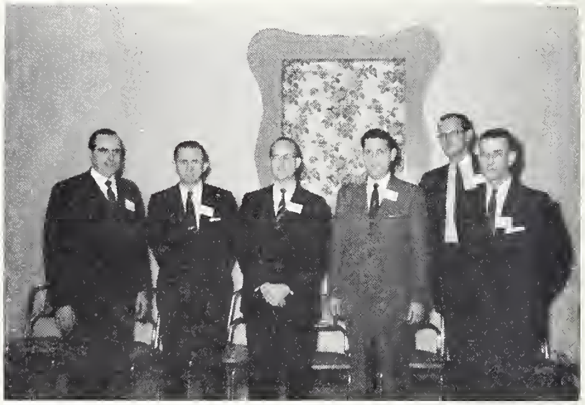
Panelists at the St. Louis County Medical Society Meeting.

Members of the panel (from left to right as pictured) were A. N. Arneson, M.D.; Mr. Harry Piper, Administrator, St. Luke's Hospital; Mr. Harry Panhorst, Associate Director, Department of Hospital Administration, Washington University; Jerome I. Simon, M.D., Moderator; Norton J. Eversoll, M.D., Mr. John Warner, Associate Director, Firmin Des Loge Hospital.

Following a formal presentation of selected topics by each panel member, a question and answer period was held—to good advantage.

The Cape Girardeau County Medical Society probably counts the months of September and October, 1957, as its "Signal Months of the Year." The society's monthly bulletin was the recipient of the 1957 Honor Award for Distinguished Service in Medical Journalism for periodicals of county and city medical societies that have no executive secretary and whose membership is less than 500. This award was given by the American Medical Writers Association during its session in St. Louis, September 27 and 28.

On October 13 the Cape Society sponsored the fourth Southeast Missouri Cancer Conference. Approximately 80 physicians from Southeastern Missouri and bordering states took advantage of an outstanding program. The guest speakers and those heading the conference on the local level (portrayed in the picture from left to right) were Robert J. Booher, M.D., Pack Medical Group, New York; H. R. McCarroll, M.D., St. Louis; William E. Long, M.D., Memphis, Tenn.; Milton Shoss, M.D., President, Cape Girardeau County Medical Society; T. A. Lovinggood, M.D., Chairman, Conference Program Committee, and James P. King, M.D., St. Louis.



Speakers and officers of the Southeast Missouri Cancer Conference.

St. Louis County Medical Society in implementing recommendations made by the Missouri State Medical Association Committee on Infant and Child Care passed the following resolution at its November 6 meeting: That the St. Louis County Medical Society direct the president of the society to take the necessary action to attempt to establish a committee of interested individuals in the field of medicine and allied professions, school administrators and other related groups for the purpose of reviewing existing programs and making recommendations which will assist in the development of a basic minimum standard of health services for St. Louis County schools.

MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

The Missouri Society of Medical Technologists will hold its spring convention at the Sheraton-Jefferson Hotel, St. Louis, April 14, 15 and 16, with a business meeting and buffet supper at the Cardinal Glennon Memorial Hospital on April 13.

The program will include speakers and demonstrations by the Missouri Association of Blood Banks, a panel on the education program for technologists in hospitals and colleges, programs on chemistry including serum iron studies, serum potassium levels, the methylene blue diagnex test and cholinesterase in jaundice. Three speakers will devote their lectures to mycology, parasitology, bacteriology and viral studies. A hematology symposium will be presented on Wednesday afternoon.

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(1) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: Sea View Hosp. Bull. *16*:80, 1956. (2) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: New York J. Med. *57*:1911 (June 1) 1957. (3) Report on Field Screening of Nostyn by 99 Physicians in 1,000 Patients, June, 1956.

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News

W. J. Burdette, M.D., Frontenac, recently was appointed director of the department of surgery at the University of Utah College of Medicine and chief of surgery at the Salt Lake (Utah) General Hospital. Dr. Burdette formerly was professor of clinical surgery at St. Louis University and director of the St. Louis University Surgical Service at Veterans Hospital.

Recently honored for 50 years' membership in the Masonic Lodge was **Ellsworth G. Beers**, M.D., Seymour.

Delevan Calkins, M.D., Creve Coeur, recently was elected president of The Doctors' Medical Foundation. Dr. Calkins succeeds **Eugene M. Bricker**, M.D., Ladue, who was elected vice president. Elected to the board of governors were Drs. **Walter Baumgarten, Jr.**, University; **Grey Jones**, Kirkwood; **Samuel B. Grant**, Clayton, and **Oscar P. Hampton**, University City. Other officers of the foundation are Drs. **Lee W. Dean, Jr.**, Clayton, secretary; and **Dean Sauer**, Clayton, treasurer.

After his release from active duty with the Air Force, **Leopold Lachance**, M.D., is planning to return to general practice in Centralia. He plans to enlarge his Medical Clinic Building in Centralia.

Recently certified a diplomate of the American Board of Ophthalmology was **Paul M. Beck**, M.D., St. Joseph.

At a Medical Assistants Workshop, held recently in Springfield, physicians featured on the program were **W. W. Tillman, Jr.**, M.D., Springfield, Councilor of the 8th District, who gave the address of welcome; **E. J. Schwartz**, M.D., Springfield, who spoke on "Medical Ethics," and **Sidney W. Scorse**, M.D., Joplin, who spoke on "The Doctor, The Patient, and The Law."

"Writers and Crusades" was the subject of a talk given by **Wallace H. Graham**, M.D., Kansas City, before the Kansas City Westport Branch, National League of American Pen Women, on November 2.

Drs. **Ira C. Layton** and **Frederick H. Hartwig**, Kansas City, were chosen to serve the unexpired terms of office of the late Dr. Ira H. Lockwood; Dr. Layton on the Blue Shield Board's Executive Committee and Dr. Hartwig on the Blue Shield Board of Directors.

On November 13, for the second year, the Buchanan County Medical Society and the St. Joseph Bar Association held a joint meeting in the Crystal Room of Hotel Robidoux in St. Joseph. The speaker was Mayor H. Roe Bartle, Kansas City. Presiding jointly at the meeting were the presidents of the two groups, Dr. **Clifton Smith** and Mr. Clarence G. Strop. More than 100 doctors and lawyers attended the meeting.

At the annual meeting of the Polk County Chapter of the American Cancer Society held in Bolivar, physicians who participated on a panel discussion on the roles of general practitioner, surgeon, pathologist and radiologist in the detection and treatment of cancer were Drs. **O. A. Griffin**, Buffalo; **Charles Lockhart, David Gorelick** and **Marvin Napper**, Springfield. **Doyle C. McCraw**, M.D., Bolivar, acted as panel moderator.

Robert W. Bartlett, M.D., St. Louis, presided at the 51st annual meeting of the surgical section of the Southern Medical Association, November 11-14, at Miami Beach, Florida. The chairman's address delivered by Dr. Bartlett was entitled, "Problems Associated With Obstructions of the Extrahepatic Bile Ducts."

Cyril J. Costello, M.D., St. Louis, has been appointed medical chief of staff for a new medical institute which Local 88 of the Amalgamated Meat Cutters and Butcher Workmen in building in St. Louis.

On November 27, the 1957 Page One Civic Award was presented posthumously to the late Robert Elman, M.D., professor of clinical surgery at Washington University School of Medicine. Dr. Elman was chosen as recipient of the award in recognition of his voluntary work during the 10 years preceding his death on December 23, 1956, in improving Homer G. Phillips Hospital and in contributing to the better training of physicians and surgeons. The Award, given annually by the St. Louis Newspaper Guild, is made to citizens outside the newspaper field who have given exceptional and valued service to the community.

Six St. Louis physicians and surgeons were recipients of awards in recognition of 25 years' service at St. Louis University. The awards were presented by the Very Rev. Paul C. Reinert, S.J., president of St. Louis University, during a three-day Founders' day celebration in observance of the 139th anniversary of the school. The physicians were Drs. **Raymond O. Muether,** associate professor of internal medicine; **John M. McCaughan,** associate professor of clinical surgery; Eugene F. Moore, senior instructor in internal medicine; **Pierce W. Powers**, assistant in surgery; **Sylvester H. Pranger**, assistant in surgery; and **William Wotawa,** instructor in surgery.

A principal speaker at a session of the Pan Pacific Surgical Association which met in Honolulu in November was **C. Rollins Hanlon,** M.D., director of the department of surgery at St. Louis University School of Medicine.

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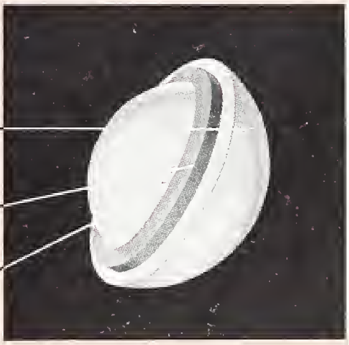

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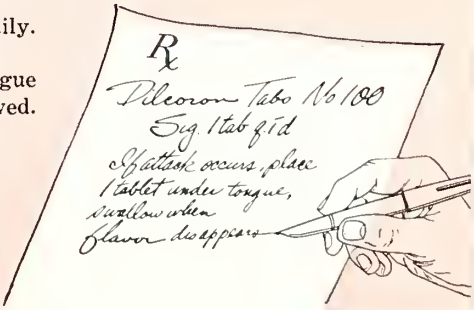

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Participating recently in the annual wreath-laying ceremony on the grave of Dr. William Beaumont were Drs. **A. W. Neilson**, St. Louis, president elect of the St. Louis Medical Society, and **H. A. Bulger**, St. Louis, chairman of the committee. The ceremony takes place annually in Bellefontaine Cemetery, St. Louis, on the anniversary of Dr. Beaumont's birth in 1785.

Research Hospital in Kansas City was named principal beneficiary in the will of the late Ira H. Lockwood, M.D., Kansas City. The will provided for two trust funds for the hospital, one of which will be used for the purpose of radiology equipment to be installed at the hospital for clinical use.

Richard R. Grayson, M.D., formerly of Perryville, has moved to St. Louis where he has received a fellowship sponsored by the U. S. Public Health Service and will receive his training at Barnes Hospital. His appointment is in the heart research department and the glandular and diabetes section of internal medicine.

Guest speaker appearing recently before the Woman's Auxiliary of the Cole County Medical Society was **Byron E. Watts**, M.D., Jefferson City, who spoke on "Public Health Education."

Children's Mercy Hospital of Kansas City is the recipient of approximately $46,000 from the will of the late Mrs. J. F. Geary of Carrollton.

Drs. **Glenn L. McElroy** and **William J. Stewart**, Columbia, gave demonstrations evaluating some of the work done through the state Crippled Children's Service at an annual clinical conference of the organization held at the University hospitals in Columbia in November.

Claude J. Hunt, M.D., Kansas City, was elected president of the Missouri Division of the American Cancer Society at its annual meeting in Jefferson City in October. Dr. Hunt succeeds Joseph L. Fisher, M.D., St. Joseph.

The World Health Organization's 1947 influenza study program and its contribution to world health in the current Asian flu outbreak was the subject of a recent talk given by **G. O. Broun**, M.D., St. Louis, who spoke before the Greater St. Louis Society of Medical Technologists.

Everett R. Lerwick, M.D., St. Louis, recently was elected chief of staff of the Missouri Baptist Hospital. Others elected were Dr. **C. H. Kilker**, assistant chief of staff; his son, Dr. **D. E. Kilker**, secretary; and, as members of the executive committee, Drs. **C. W. Harris**, **R. D. Brookes**, **K. V. Larsen** and **W. M. Lonergan**, all of St. Louis.

Arthur E. Strauss, M.D., St. Louis, was presented the distinguished achievement award by the St. Louis Heart Association at its recent annual meeting. Making the presentation was the association's president, **David Flavan**, M.D., St. Louis. **John R. Smith**, M.D., St. Louis, was presented a past president's pin.

Speaking recently before the annual dinner meeting of the Carthage branch of the Jasper county unit of the American Cancer Society was **A. McChesney Evans**, M.D., Columbia. Dr. Evans' subject was "New Methods in Fighting Cancer."

B. M. Stuart, M.D., Boonville, recently was appointed a member of the Committee on Medical Practice of the American College of Chest Physicians.

"Grief, and Its Part in Everyday Life," was the subject of a recent talk given by **John J. O'Hearne**, M.D., Kansas City, before the St. Joseph, Missouri, Mental Association. The association's general program theme this year is "Common Emotional Problems of Everyday Living."

Speaking recently before the Vernon County Unit of the American Cancer Society in Nevada was **Albert E. Upsher**, M.D., Kansas City, who spoke on "Progress in Cancer Research."

DEATHS

Harrison, J. Frank, M.D., Mexico, a graduate of Missouri Medical College of St. Louis, 1898; Past President of the Association; honor member of Audrain County Medical Society; aged 85; died October 22.

James, Robert M., M.D., Joplin, a graduate of St. Louis University School of Medicine, 1904; honor member of Jasper County Medical Society; aged 77; died October 28.

Jones, William E., M.D., St. Louis, a graduate of the Homeopathic College of Missouri, 1897; honor member of St. Louis Medical Society; aged 81; died November 10.

Longfield, Fred J., M.D., Lathrop, a graduate of the Eclectic Medical College of Cincinnati, 1901; honor member of Clinton Medical Society; aged 81; died October 15.

Minton, William H., M.D., St. Joseph, a graduate of Washington University School of Medicine, 1905; honor member of Buchanan County Medical Society; aged 75; died November 2.

Moskop, Peter G., M.D., St. Louis, a graduate of Washington University School of Medicine, 1910; member of St. Louis Medical Society; aged 70; died November 14.

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TABLETS: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Nodaway-Atchison-Gentry-Worth County Medical Society

Dr. H. C. Willumsen of St. Joseph, Missouri, spoke at a dinner meeting of the Nodaway-Atchison-Gentry-Worth County Medical Society and its Woman's Auxiliary in Maryville on Tuesday night, October 8. His subject was "Some Obstetrical Problems."

Charles D. Humberd, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society met November 14, 1957, at the Strand Hotel in Chillicothe. There were about 40 present including members, Auxiliary members and guests. After dinner the guests and visitors were introduced. The Auxiliary then retired to their meeting.

The scientific program was presented by Mr. Harry L. Porter, Attorney at Law, Marceline, who discussed "The Doctor in the Courtroom as I See It." This was a fine paper. Some excellent advice was given to doctors who are called upon to testify in court. Questions and discussion followed. This being the night of the annual election, the following officers were elected for 1958: President, Dr. Charles M. Grace; 1st Vice President, Dr. E. W. Allen; 2nd Vice President, Dr. Robert W. Smith, and Secretary and Treasurer, Dr. E. A. Duffy.

Dr. Sewell spoke at the October meeting.

The application for membership of Dr. Michael W. LaSalle, Trenton, favorably recommended by the censors, was presented. He was elected to membership by unanimous vote.

There being no further business, the society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Societies

Twenty physicians attended a dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society at the Woodland Hospital in Moberly, Missouri, on Thursday night, November 14.

Following dinner, Dr. Dan Stuart, President of the Society, introduced the guest speaker, Dr. Walter S. Sewell, Springfield, President of the Missouri State Medical Association. He discussed important pending legislation, both on the state and national level, which affects not only doctors, but the welfare of the people in general.

Dr. Sewell was the speaker at the meeting.

The audience asked questions following the talk.

Following a general discussion by many of the members on conclusion of Dr. Sewell's talk, a new cancer film was shown. A special guest at the meeting was Ray McIntyre, Field Secretary of the Missouri State Medical Association.

At a short business session, the Society elected Dr. W. D. Chute, Moberly, President; Dr. Carl Weger, Keytesville, Vice President, and Dr. Robert H. Young, Moberly, Secretary-Treasurer for 1958.

Robert H. Young, M.D., *Secretary*

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FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

A meeting of the Lincoln-St. Charles County Medical Society was held Thursday night, November 21 at the Southern Air in Wentzville. This affair was fittingly termed "Wives' Night." The ladies were guests of honor and participated in the program of the evening which consisted of an informal discussion of socioeconomic medical care problems.

Dr. J. C. Creech, Councilor of the Fourth District, explained the functions of a Councilor and spoke of some of the deliberations of the Council of the State Medical Association.

Paul Rother, M.D., *Secretary*

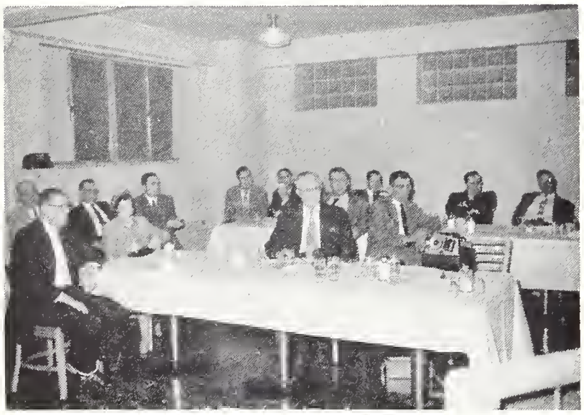
FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain, Callaway and Montgomery County Medical Societies

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, November 18, 1957, in the dining room of the Audrain Hospital, Mexico. The meeting was called to order by the President, Dr. Harry F. O'Brien.

Dr. Muether (right) answered questions following his presentation.



The program followed a dinner.

The guest speaker for the evening, Dr. R. O. Muether, St. Louis, was introduced by Dr. O'Brien. Dr. Muether spoke on "Medical Emergencies" and illustrated his talk with diagrammatic slides.

Dr. W. S. Sewell, Springfield, President of the Missouri State Medical Association, also spoke to the group on the subject, "Pending Legislation Affecting the Physician."

The following were present: Drs. Lawrence K. Epple, Charles Garcia, J. Frank Jolley, Ed S. Wallace, Glen Kallenbach, Thomas Dwyer, Sam J. Byland, Kathryn Epple, Harold Lankford, William Jolly, Ben Jolly, Ernest Gantt, Harry F. O'Brien, Leonard Davis, Mr. Ray McIntyre, Mr. Keyton Nixon.

There being no further business, the meeting was adjourned.

Lawrence K. Epple, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

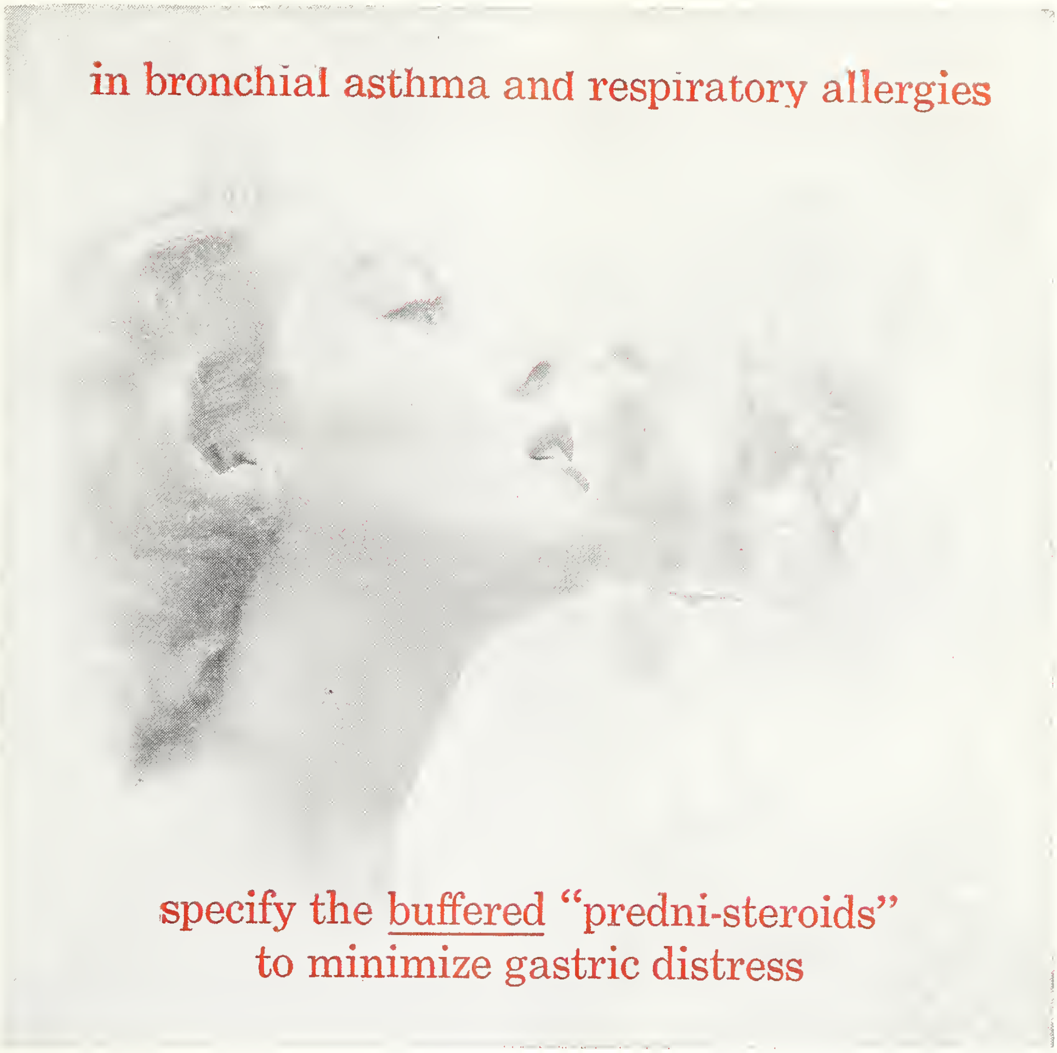
C. G. STAUFFACHER, SEDALIA, COUNCILOR

Joint Meeting of Medical Societies

A joint meeting of physicians from Henry, Johnson, Lafayette Pettis, Ray, Saline and adjacents County Medical Societies and many of the doctors' wives was

The wives had dinner with the doctors preceding the program.

The speakers, Dr. Sewell and Dr. Cashman, talked with Dr. Stauffacher and Dr. Lowe after the meeting.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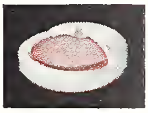

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held Wednesday night, November 20, at the Pacific Cafe in Sedalia. Some 65 people enjoyed the evening festivities which began with a social hour followed by dinner and then the program.

The ladies held a separate meeting while the doctors listened to a discussion on "The Medical Treatment of Hypo- and Hyperthyroidism" given by Dr. John W. Cashman, Kansas City. Following the interesting talk by Dr. Cashman, the President of the Missouri State Medical Association, Dr. Walter S. Sewell, Springfield, was introduced. Dr. Sewell spoke for a short period on some of the major problems now facing the medical profession. Considerable interest in his discussion was evidenced by many of those present asking numerous questions. Another meeting of this joint group is planned for the third Wednesday in January to be held again in Sedalia.

C. G. STAUFFACHER, M.D., *Councilor*

West Central Missouri Medical Society

Albert L. Decker, M.D., Kansas City, spoke before a meeting of the West Central Medical Society on November 14. He discussed "Diseases of the Thyroid Gland and Laboratory Aids in Diagnosis."

The meeting was held at the Country Club in Nevada. The evening festivities included a social hour and dinner which preceded the scientific program. A number of doctors' wives were also in attendance.

ROBERT MAGEE, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The November meeting of the Ozarks Medical Society was held November 12 at 7:00 o'clock at the Bank Hotel in Aurora. Forty members, guests and Auxiliary members were present.

The speakers' panel, Dr. Dames, Dr. Nuetzel and Dr. Hammond, was seated together.

The audience was interested throughout the presentation.

Dr. A. J. C. McCallum, Aurora, acted as host and introduced the panel from the University of St. Louis Medical School whose subject was "Latest Developments in the Management of Coronary Disease." Those on the panel were Dr. John Nuetzel, Dr. John Hammond and Dr. Richard Dames.

A short business meeting followed with a message from the Councilor, given by Mr. McIntyre. This was followed by a short discussion on by-laws pertaining to membership requirements, especially regarding state and county dues.

The next meeting will be held in Mt. Vernon on December 10 at the Missouri State Sanatorium for dinner, with a scientific program to follow, presented by a panel from the University of Missouri for Category I credit for the Academy of General Practice. Dinner will be served to the Society at the Sanatorium starting at 6:45 p.m.

A. J. GRAVES, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

Twenty-five persons, including doctors and wives, attended a dinner meeting of the Mid-Missouri Medical Society at the Yellow Jacket Cafe in Lebanon, Thursday night, November 21.

Alex L. Brown, M.D., Springfield, gave an interesting and practical talk on "Psychiatry for the General Practitioner."

Mr. Phil Foley, St. Louis, Field Secretary of Missouri Medical Service, and Ray McIntyre were guests.

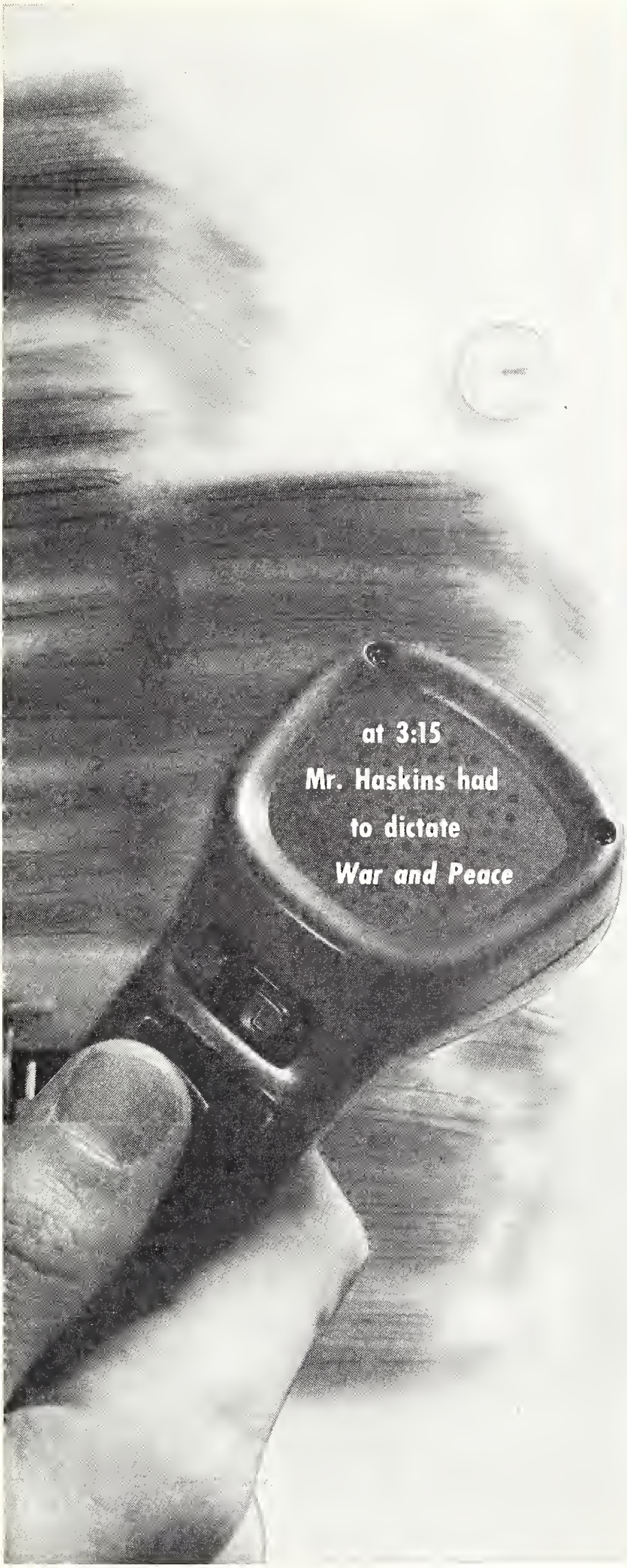
M. K. UNDERWOOD, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Joint Meeting of Medical Societies

A joint dinner meeting of the Dunklin, Butler-Ripley-Wayne, Pemiscot and Semo County Medical Soci-



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Dr. Spence and Dr. Palenske were at the speaker's table with the speaker, Dr. Sewell.

The group listened attentively.

eties was held at the Cotton Boll Hotel in Kennett on Tuesday night, November 19. In spite of heavy rains and flood conditions, 25 physicians from the area were in attendance and were privileged to hear Dr. Walter S. Sewell, Springfield, President of the Missouri State Medical Association, discuss in detail many of the problems before organized medicine.

The sociability of the Bootheel was quite evident throughout the social hour festivities, compliments of the Dunklin County Medical Society, and the bountiful meal which followed. Mr. Ray McIntyre, Field Secretary of the State Medical Society, accompanied Dr. Sewell to this meeting.

E. L. Spence, *Secretary*
Dunklin County Medical Society

Mineral Area County Medical Society

A. C. Trueblood, Jr., M.D., St. Louis, spoke on "Differential Diagnosis of Pelvic Pain in the Female" at a meeting of the Mineral Area County Medical Society on Thursday night, November 21.

The session was held in the Clinic Building of the State Hospital at Farmington.

R. A. Huckstep, M.D., *Secretary*

The Council

The Council met at the Coronado Hotel, St. Louis, on November 23, 24, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were Drs. Muether; B. M. Stuart, Boonville; Ralph Perry, Kansas City; W. W. Tillman, Springfield; Ben M. Bull, Ironton; W. S. Sewell, Springfield; W. F. Francka, Hannibal; Jerome I. Simon, St. Louis; Joseph C. Creech, Troy; Messrs. John W. Noble, Kennett; T. R. O'Brien, Ray McIntyre, Bill Logan, Lemoine Skinner, Ed Schneider, St. Louis; Helen Penn, St. Louis; Drs. J. H. Summers, Lebanon; Joseph E. Flynn and C. K. Leeper, Columbia; H. M. Hardwicke, Jefferson City; Durward G. Hall, Springfield, attended the Saturday session. Drs. Donald M. Dowell, Chillicothe; B. L. Murphy, Hannibal; Joseph C. Peden, St. Louis, and Hollis Allen, St. Louis, attended the Sunday session.

Dues Notices

The new dues notice form, approved by the Council and by the larger medical societies, was shown to the Council.

Field Secretary's Report

Mr. McIntyre reported on meetings which he and Dr. Sewell had attended, Dr. Sewell addressing the membership on organization affairs and problems facing the medical profession. He said they had been to the Grand River Medical Society, the Jasper County Medical Society, the Chariton-Macon-Monroe-Randolph County Medical Society, the Dunklin County Medical Society and a semi-district meeting at Sedalia. He stressed the importance of these meetings and the interest shown by the members. He suggested that, in the future, Presidents address Councilor District meetings during the year since going to all component societies is almost impossible but the value of such meetings should not be lost. Dr. Sewell concurred with the report and the suggestion. Mr. McIntyre reported that three preceptees are with physicians at the present and that three or four will go out before June.

Treasurer's Report

Dr. Simon reported on the finances of the Association and said that $20,000 had been invested by the Association's financial advisor, the Mercantile Trust Company. On motion of Dr. Francka, duly seconded, the Treasurer's report was accepted.

Medicare

Mr. O'Brien reported that through October 31, there had been 3,223 claims paid in the amount of $247,567.26 in the St. Louis area; 2,598 claims paid in the amount of $175,144.80 in the Kansas City area.

It was stated that the State Medicare Committee has handled 104 cases, with 47 completed and payment authorized, 22 referred and payment recommended and that the rest are pending. The work of the Committee was outlined by Dr. Simon and Mr. O'Brien. The position of the House of Delegates that the possibility be explored of renegotiating on a no fee basis was reviewed and it was pointed out that a session of the

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Philadelphia meeting of the A.M.A. will be devoted to the subject of Medicare. Missouri's contract will be up for renegotiation next September. The handling in other states was reviewed and it is believed that Florida, which has an early renegotiating date, will attempt to have a contract on a no fee basis. Dr. Tillman asked if it would be possible to have a representative from the Washington Medicare Department at the Annual Session and this was approved by the Council.

Forand Bill

It was stated that material on the Forand Bill had been carried in the October and November issues of MISSOURI MEDICINE and another item will be carried in the December issue. It was said that reprints of the President's Page from the November issue will be sent to component societies with the request that this be discussed by these groups. An article from the St. Louis *Labor Tribune* was read, denoting approval of the bill by the AFL-CIO. Information released by the A.M.A. was called to attention and it was pointed out that the A.M.A. was attempting to enlist the interest of other organizations. It was stated that the American Hospital Association had not taken a stand on the bill and it was suggested that individual hospitals might influence the Missouri Hospital Association and the American Hospital Association.

Budget

Dr. Simon presented the following budget, which on motion of Dr. Sewell, seconded by Dr. Francka, was approved:

Salaries	$ 56,108.00
Office rent and light	4,700.00
Postage	5,000.00
Printing, Stationery and office supplies	4,500.00
JOURNAL Expense (paper and printing)	35,500.00
Telephone and Telegraph	2,000.00
Insurance Retirement Plan	2,700.00
Professional Fees	2,700.00
Taxes, payroll	1,630.00
Travel Expenses (Executive, Field and Assistant Secretary)	6,500.00
Committees and Meetings	32,700.00
General Expenses	3,500.00
Furniture and Fixtures	1,500.00
Total	$159,110.00

Council Minutes

It was suggested that reprints of Council minutes would be of value to Councilors in talking with members and it was suggested that this be explored.

Cytology Service

Dr. Flynn presented the following minutes of a combined meeting of the Committees on Cancer and Laboratory Medicine held on November 10.

"*Presiding:* Marvin L. Napper, M.D., Springfield.

"*Present:* Drs. Napper, Joseph E. Flynn, Columbia; C. W. Meinershagen, Jefferson City; Charles E. Lockhart, Springfield; Angelo Lapi, Kansas City; C. K. Leeper, Columbia; Thomas M. Martin, O. E. Hagebusch and George A. Carroll, St. Louis; Mr. Harry Dawdy, Jefferson City; Mr. Ray McIntyre, St. Louis.

"*Purpose:* To receive, discuss and act upon a proposed program from the Laboratory Medicine Committee for 'the establishment of a state-wide cytological service for the study of cervical smears.'

"*Discussion:* In review, by Dr. Flynn, it was pointed out that the Council of the Missouri State Medical Association last spring referred the problem of exfoliative cytology in the State of Missouri to the Laboratory Medicine Committee for consideration following some preliminary discussions between the Chairmen of the Laboratory Medicine and Cancer Committees.

"The two committees met jointly on May 26 to discuss Missouri's cytology problems. Dr. Flynn stated that on the basis of this joint meeting and other meetings held jointly with the State Division of Health and the American Cancer Society (Missouri Division) representatives, the Laboratory Medicine Committee has concluded the complaints stem largely from a lack of information on the part of a few practicing physicians, particularly in rural areas.

"Accordingly, the Laboratory Medicine Committee has been working on a three phase plan to be submitted for approval today by this joint meeting and then to the Council of the Missouri State Medical Association for its consideration.

"The plan follows:

"The first phase is to disseminate information as to how to take the smears, techniques of handling the slides and what the results mean. Extensive use would be made of movies and lectures at hospital staff meetings and at County and District Medical Society meetings. The film to be shown, made by the American Cancer Society, is "Uterine Cancer—The Problem of Early Diagnosis" with running time 22 minutes. Teams, consisting of a pathologist and a gynecologist, will be established in each region of the state and will be used to conduct this teaching phase at the meetings referred to above. It is anticipated that some financial aid to help defray the costs of this proposed educational program will be forthcoming from the Cancer Society.

"It is further proposed that the Laboratory Medicine Committee have a booth at the MSMA Annual Session in April, 1958 to promote this cytology campaign. Committee members would man the booth.

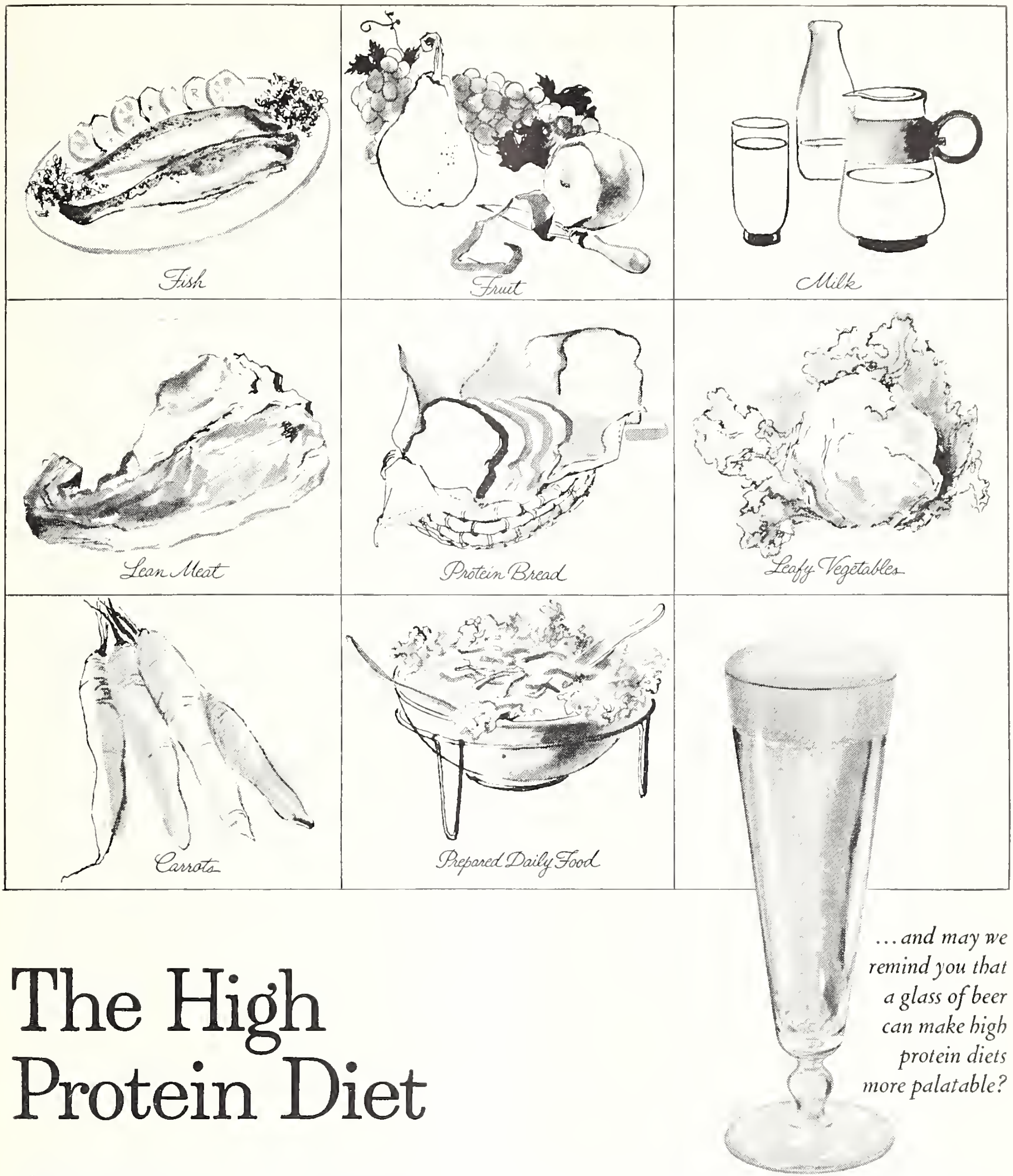
"The second phase is to develop training centers for cyto-technologists to help with the screening. The Laboratory Medicine Committee feels this can be done by using existing schools of technology for training.

"The third phase is to be a lay-directed educational program necessitating close liaison with the Missouri Division of the American Cancer Society as to timing, what is disseminated, and where.

"*Action:* Following considerable discussion by various members of the two committees, on motion of Dr. Carroll, duly seconded, it was unanimously voted that the three-phase cytology plan, as proposed by the Laboratory Medicine Committee, be approved by this joint committee and presented to the Council of the Missouri State Medical Association for its approval."

Dr. Flynn said that Dr. Buhler would take the Kansas City district; Drs. Coller and Ferguson the southwest portion of the state; Dr. Flynn the central, and Dr. Hagebusch the St. Louis section. He pointed out that this would be a screening procedure, not diagnostic and that a charge would be made for the work.

Dr. Leeper demonstrated the equipment needed and the procedure. On motion of Dr. Tillman, seconded by Dr. Stuart, the report was accepted.



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Public Health

Dr. Hardwicke pointed out that the Division of Health was ready to do screening work and asked advice on support of screening, who should do the screening and who be the recipients and who would have control. He pointed out that Public Health nurses find people who have never been in a physician's care and that it is estimated that 40 per cent of recipients of welfare in Missouri are not getting adequate medical care. After discussion, on motion of Dr. Tillman, duly seconded, it was voted to appoint a special committee to work with the Division of Health on screening and health surveys. A brochure presented by Dr. Hardwicke was complimented. Dr. Hardwicke said that there was still Federally purchased poliomyelitis vaccine available; that the Division had not gone into the Asian Flu vaccine.

Dr. Hardwicke pointed out that in the last session of the legislature a bill providing compulsory isolation of tuberculosis patients had not passed and asked the support of the Association in the next session. This, together with study of mobile x-ray units, was referred to the Committee on Tuberculosis.

Dr. Hardwicke stated that in compliance with a recent law, the Department of Education had requested the names of handicapped children together with the diagnosis and the doctor's name. He said that the Attorney-General had approved this. No specific action was taken by the Council. Dr. Hardwicke said that the Hill-Burton survey was progressing and the report would be available within 60 days.

Vendor Program

The Vendor program was discussed, including the action of the House of Delegates, the organizations and communities approving it, the comments of members showing disapproval of the action of the House of Delegates or confusion of its intent, and the possibility of it being introduced in the called session of the legislature in January. In compliance with the action of the Council in September that a poll of the entire membership be taken because of the possibility of it being brought up in the legislature prior to another meeting of the House of Delegates, suggested material to go to the membership was presented and discussed.

A kit to go to all members with a covering letter was approved on motion of Dr. Dowell, seconded by Dr. Stuart.

Vocational Rehabilitation

Mr. O'Brien reported that the committee appointed to meet with the Department of Education and a committee of osteopaths had not met as yet but that he and Mr. Adams of the Missouri Osteopathic Association had met with Mr. Wheeler to discuss the request of the Osteopathic Association that osteopaths be permitted to make initial examinations on persons eligible for vocational rehabilitation. After discussion, this was referred to the Committee on Physical Medicine and Rehabilitation on motion of Dr. Tillman, duly seconded.

Single Licensure

It was stated that a possible meeting with representatives of MSMA Council and Missouri Osteopathic Association concerning the single licensure act had been discussed and that January 12 or 19 had been tentatively set. It was suggested that the Association committee have a meeting prior to this and December 15 was set tentatively.

Hospital-Medical Staff Relations

Dr. Allen stated that Blue Cross and Blue Shield had too often been the battleground on problems of the hospital and the physician and that the Joint Committee on Hospital-Physician Relations composed of an equal number of representatives of the Missouri Hospital Association and MSMA had drawn up "Recommended Guides for Hospital-Medical Staff Relations" which he presented. After discussion in which two changes were recommended, on motion of Dr. Sewell, seconded by Dr. Dowell, the Guides were adopted as follows:

Recommended Guides for Hospital-Medical Staff Relations

Introduction

The general purpose of hospitals and physicians is to aid each other in the delivery of the best possible medical care to patients. To attain such a purpose requires full cooperation among medical staffs, governing boards and administrative heads of hospitals. The Missouri State Medical Association and the Missouri Hospital Association agree that methods of procedure should be established for properly disposing of grievances and other problems which might arise between these organizations and/or their respective members. The following procedures have been approved by the Missouri State Medical Association on .... and by the Missouri Hospital Association on .... as constituting means of achieving these ends if local means prove inadequate.

Grievance Procedure

The following Grievance Procedures shall be available to any physician or hospital having a grievance pertaining to hospital professional relations:

The Joint Committee encourages the formation of committees on hospital-professional relations on a local or district basis. In districts where such committees have not been established the Joint Committee will consider grievances when invited so to do. When established, such local or district committee should attempt to resolve all grievances referred to them. After all efforts at the local or district level have failed the grievance should be considered and resolved by the Joint Committee.

1. Any member of the medical staff of a hospital who feels that he has a grievance against his hospital shall first attempt to obtain adjustment of the situation within the institution through the administrator, the medical staff, and the trustees. Failing in this, he shall be free to present his case before the appropriate committee mentioned below without prejudice to his position on the medical staff in the hospital.

2. The administrator of any hospital shall similarly be free to present any grievance against a staff member to the appropriate committee, mentioned below in subsection 4, without prejudice to his position as an administrator, provided he has failed to obtain adjustment of the situation within the institution through the medical staff and trustees.

3. The Missouri State Medical Association shall appoint a standing committee to act as a Board to hear any charge of exploitation or other grievance from a

physician pertaining to hospital professional relations. The Committee on Hospital and Professional Relations may be considered such a committee. If the grievance is not resolved by this Board, it shall be referred to the Joint Hospital-Physicians Relations Committee of the Missouri State Medical Association and Missouri Hospital Association for a hearing and opinion.

4. The Missouri Hospital Association shall appoint a standing committee to serve as a Board to hear any charge of exploitation or other grievance from a hospital pertaining to professional relations of the medical staff. Their Council on Professional Practice may be considered such a committee. If the grievance is not resolved by this Board, it shall be referred to the Joint Hospital-Physicians Relations Committee of the Missouri State Medical Association and Missouri Hospital Association for a hearing and opinion.

5. The findings and recommendations of this Joint Hospital-Physicians Relations Committee shall be submitted to both parties and reported to the governing boards of the Missouri State Medical Association and the Missouri Hospital Association.

6. Approval of these recommendations by the Missouri State Medical Association and the Missouri Hospital Association will mean that each organization will use its influence to secure their adoption and practice in good faith by all members of the Missouri State Medical Association and by all hospitals in the Association.

Manner of Remuneration of Physicians by Hospitals

The Missouri State Medical Association and the Missouri Hospital Association agree that the manner of remuneration of a physician by a hospital is an individual matter and shall be left to each hospital and physician to agree upon. Such agreement shall satisfy, however, the following conditions:

a. The financial arrangement, if any, between a hospital and a physician properly may be placed on any mutually satisfactory basis, but a physician shall not dispose of his professional attainments or services to any hospital, lay body, organization, group, or individual, by whatever name called, or how organized, under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill, or tend to cause deterioration of the quality of medical care.

b. The above principles shall apply in all cases, whatever the purpose of the financial arrangement may be, including the remuneration of a physician for teaching, research, charitable services, and the like.

c. The practice of Anesthesiology, Pathology, Physical Medicine, and Radiology are an integral part of the practice of Medicine in the same category as the practice of Surgery, Internal Medicine, or any other designated field of medicine. The staff appointments and reappointments of these specialists shall be governed by the same principles as the appointments and reappointments of other medical staff members.

d. The chief of a hospital department shall have an opportunity to obtain financial reports regarding his department.

Revocation of Hospital Medical Staff Appointments

Since the Joint Commission on Accreditation of Hospitals does not outline the procedure to be followed for revocation of staff appointments, the Committee recommends that the following procedure be approved:

Revocation of membership on the medical staff of a

when anxiety and tension "erupts" in the G. I. tract...

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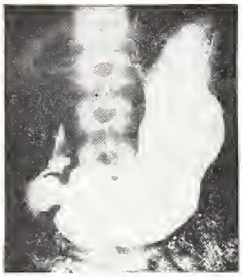

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hospital shall be made officially by the governing body. In no case shall the governing body take such action without previous consideration by the staff, as outlined below, and in accordance with any applicable provisions of the by-laws of the individual hospital.

Written notice of the board action shall be sent to the staff member involved and staff or appropriate staff body.

Under certain conditions when desirable for the protection of the physician or the hospital, a staff member should be acquainted with the charges against him and offered the option of resigning.

Formal proceedings to revoke hospital staff membership may be initiated by the staff or by the governing body and shall be referred to the proper staff committee. This committee shall make its report to the staff or the appropriate staff body, which in turn shall send the committee report together with its recommendations to the governing body.

Should the staff member involved or the staff be unwilling to accept the decision of the governing board, request for a review must be made in writing to the administrator of the hospital within thirty days of receipt of written notice of the board action.

A committe with equal representation from the staff and governing board shall be appointed jointly by the chief of staff and chairman of the board of trustees, to review the case and send its recommendation to the governing board with a copy to the staff or appropriate staff body within sixty days.

If this committee is unable to make a majority recommendation or if any of the parties involved so desires, a request for an opinion at the state level may be made to the president of the Missouri State Medical Association and to the president of the Missouri Hospital Association.

Upon receipt of such request, the president of the Missouri State Medical Association shall appoint three members of the Society, none from the medical staff of the hospital under discussion, and the president of the Missouri Hospital Association, shall appoint one hospital administrator and two hospital trustees, none from the hospital under discussion, to serve on the committee to act as an appeal board.

The six appointed members of this committee shall meet and select a lay chairman, not a hospital trustee or administrator, but one who is well known for his interest and activity in local and state civic affairs.

The report of this committee shall be sent to the governing board of the hospital, to the medical staff, and to the involved member or members of the staff, and to the presidents of the Missouri State Medical Association and the Missouri Hospital Association.

A copy of the report of the findings of this committee shall be made available to the Joint Commission on Accreditation of Hospitals at its request.

Reappointment of Hospital Medical Staff

Since the governing body delegates authority for the conduct of the medical functions of the hospital to the medical staff, a method is necessary for the medical staff to be accountable to the governing body for its conduct of the medical functions. The traditional practice of annual appointments was adopted as such a method. The procedure for reappointments, therefore, should follow in general the same procedure as that for new appointments. In hospitals where staff appointments are made for a period of one year, or for some other fixed period, the procedure for revoking privileges does not apply to the routine expiration of such appointments, but if a staff member who did not receive a reappointment or whose privileges were changed so desires, he may request a review according to the procedure outlined above under "Revocation of Staff Appointments."

Appendix

Hospital Medical Staff Appointments

The Joint Commission on Accreditation of Hospitals very clearly states the mechanism by which appointments to an accredited hospital staff must be made and where the final responsibility for the conduct of the hospital lies. In their publication *Standards for Hospital Accreditation*, dated April 9, 1953, the following three paragraphs are pertinent:

I. ADMINISTRATIVE

....

B. Governing Body

All phases of the conduct of the hospital are the legal and moral responsibility of the governing body. In the discharge of its duties, the governing body is responsible to the patient, the community, and the sponsoring organization. Since governing bodies are rarely qualified medically, responsibility for the medical functions of the hospital must be delegated to the medical staff.

II. MEDICAL STAFF

A. Organization

....

3. Staff Appointments

a. Procedure

Staff appointments are made officially by the governing body. Recommendations are customarily made by the active staff, and in no case shall a governing body make an appointment to the staff without first requesting such a recommendation.

....

6. Committees

The following committees are required:

....

b. Qualifications or Credentials Committee.

The qualifications or Credentials Committee shall review applications for appointment and reappointment to all categories of the staff, extend privileges in the hospital, and make appropriate recommendations to the staff in such cases.

Franklin County Request

It was reported that the committee appointed to study the request that Franklin County be changed from the 2nd to the 5th Councilor District had not met. Dr. Bull was asked to replace Dr. Bohrer on the committee.

Greene County

Dr. Tillman announced that Greene County Medical Society planned a reception and cocktail party in honor of the President, Dr. Sewell, preceding the Annual Banquet at the Annual Session to which all members will be invited.

R. O. Muether, M.D., *Chairman*

who coughed?

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STUDY EFFECT OF TV ON CHILDREN

Children's interest in television may be an asset, when properly supervised in the home, according to studies conducted by Northwestern University.

Since 1949, the psycho-educational clinic of the university has studied the TV viewing habits of more than 2,000 children in the Chicago area. Children, teachers and parents have been interviewed, according to Paul Witty, Ph.D., director of the clinic. The results were discussed in the November issue of *Today's Health*.

By the spring of 1950, after TV became available in 1949, 43 per cent of the children interviewed had TV sets at home. In 1951, 68 per cent had them; and in 1957, 96 per cent had them. In one school studied this year, only one child did not have a TV set at home.

Many people believed that the amount of time children spent in front of the TV set would drop sharply after the novelty wore off. Not so, says Witty—they spend as much or more time now watching TV than they did at first.

In 1950 elementary school children averaged 21 hours a week with TV. The average dropped to 19 hours a week in 1951, but went up later with new and better programs. The average for high school students in 1957 was considerably less—only 12 hours a week.

From the standpoint of health, parents, in 1950, complained that children slept less, played less, and were more nervous and disturbed as a result of prolonged TV viewing. Today however, fewer and fewer parents voice these objections. One reason, Witty believes, is that parents are apparently trying to arrange proper conditions for watching TV and are encouraging rest periods and changes in activities. And although children's interests and hobbies have changed slightly since 1950, their outdoor recreation has not changed much, according to the studies.

In those cases in which children spend too much time with TV, and have emotional problems, teachers report they have always found other factors probably responsible, such as poor home or other unfavorable environment.

Television seems to have a conflicting effect on school work and grades, according to Witty. Although there seems to be little relationship between grades and amount of television watching, nevertheless excessive watching appears to be associated with somewhat lower grades. However, one teacher is quoted as saying, "Good students tend to remain good; poor students stay bad."

Also, television may be an asset in awaking curiosity about various subjects, and an incentive to learn. Children who think TV helps their school work mention its value in improving vocabulary and knowledge of history, current events, science, people at home and around the world, and books. Librarians report that children are reading "more than ever," which indicates that television has not cut reading.

PRESS URGED TO FOCUS LIGHT ON MENTAL ILLS

One of the nation's leading psychiatrists has called on the nation's press to help wipe away the cobwebs surrounding the public's idea of mental illness. Dr. Will Menninger, Topeka, Kans., urged the newspapers to publicize the dark picture of mental health in the nation.

Speaking at a recent meeting of the Associated Press Managing Editors association in New Orleans, Dr. Menninger said: "The solution to our mental problem will not depend on the psychiatrists but on the mass communication media that will have to tell the people what the problem is about."

He stressed that emotional problems are universal. "Mental health problems do not affect three or four out of every five persons but one out of one," he said.

The physician, secretary of the Menninger Foundation, listed five basic problems involved in America's health situation:

1. There is a lack of public understanding. "The incidence of mental illness is in every family but even now it is something of a skeleton in our closet because of our embarrassment."

2. There is not enough money invested in the field. Menninger said people contributed 30 million dollars to cancer funds but only three million for mental health last year.

3. There is a shortage of manpower. The psychiatrist said that only 9,000 physicians are interested in mental health and there is a need for 20,000 doctors doing some work in the field.

4. The subject is not fully understood even by psychiatrists. Dr. Menninger said doctors do not fully know why mental illness results, how to cure it, how to diagnose it and how to prevent it.

5. Not enough money is devoted to mental health research. "The research in psychiatry is only a drop in the bucket." The doctor said psychiatry gets only a nickel of each dollar devoted to medical research.

The magnitude of the problem recently was pointed up by Dr. Alfred K. Bauer, a Missouri psychiatrist, who said that 54 per cent of the hospital beds filled today are occupied by persons suffering from some kind of mental disturbance.

"Despite the scope of the problem," he added, "an attitude of apathy exists in the mind of the public." Dr. Bauer is superintendent of State Hospital No. 1 at Fulton.

A directory listing all mental health agencies and services in Greater Kansas City has been published by the Kansas City Association for Mental Health, 1020 McGee Street, Kansas City. While designed for the public, it might be of interest to the physicians in the western half of the state.

Entitled, "Where Do I Go for Help," the booklet lists organizations providing psychiatric services for adults and children, casework services for family and children and services for individual school and juvenile problems. The publication, approved by the Jackson County Medical Society, is available free of charge.

URGE CAUTION WITH X-RAY

Radiologists and scientists in the atomic field are warning of needless over-exposure to x-ray and other radioactive material.

Dr. Wendell G. Scott of St. Louis, president of the American Roentgen Ray Society, recently complained of practitioners who with little training make indiscriminate use of radiology techniques. Dr. Scott, a member of MSMA, is professor of clinical radiology at Washington University. Speaking at a meeting of his Society, Dr. Scott said:

"Nobody wants to do away with diagnostic x-rays. The need is to see they are used when really indicated. Any physician, osteopath, chiropractor, or na-

(Continued on page 74)

Constitution and By-Laws
Missouri State Medical Association

CONSTITUTION

Article I. Name of the Association

The name and title of this organization shall be the Missouri State Medical Association.

Article II. Purpose

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

Article III. Membership

Membership in this Association shall be limited to and include all members in good standing in component societies which hold charters from this Association.

Article IV. House of Delegates

The House of Delegates shall be the legislative body of this Association and shall consist of delegates elected by the component societies. It shall elect a Speaker and Vice Speaker from its body. Its Secretary shall be the Secretary of the Missouri State Medical Association.

Article V. Council

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Secretary, Treasurer and the duly elected Councilors from each Councilor District. Nine members shall constitute a quorum.

Article VI. Sessions and Meetings

Section 1. The Association shall hold an Annual Session at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

Sec. 2. Special meetings of the Association or of the House of Delegates may be called by a two thirds vote of the Council and shall be called upon a petition signed by members equal in number to one third of the total number of delegates certified for the last Annual Session.

Article VII. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice Presidents, a Secretary, a Treasurer, a Speaker and a Vice Speaker of the House of Delegates and ten Councilors selected as provided for.

Sec. 2. All officers except Councilors shall be elected annually. The terms of Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor from that district. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. All of the officers shall serve until their successors are elected and installed.

Article VIII. Funds, Expenses and Budget

Funds shall be raised by a per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised in any other manner approved by the House of Delegates. The Council shall submit an annual budget to the House of Delegates. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

Article IX. Referendum

At any General Meeting of the Association it may, by a two thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Association for its vote. A majority vote of all members of the Association shall determine the question.

Article X. Seal

The Association shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

Article XI. Amendments

The House of Delegates may amend any article of this Constitution by a two thirds vote of the delegates present and voting at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and that it shall have been published twice during the year in the Journal of this Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

BY-LAWS

Chapter I. Membership

Section 1. Members of this Association shall be physicians whose names have been certified by secretaries of component societies to the Secretary of this Association that they are duly elected members of a component society and are legally qualified physicians practicing in Missouri except as otherwise provided. Each member must be a citizen of the United States, of good moral and professional standing, and must not support, nor practice, nor claim to practice any exclusive system of medicine.

Sec. 2. No person who is under sentence of suspension or expulsion from any component society of this Association or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association.

Sec. 3. There shall be three classes of members as follow:

Active members shall be limited to those members of component societies who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) are entitled to exercise the rights of active membership in their component societies, as determined by their component societies, subject to the provisions of these By-laws.

Junior members shall be limited to those members of component societies who (1) become members within the first four years subsequent to graduation from medical school, or (2) who are serving full time, approved internship or residency in a hospital.

Honor members shall be limited to Honor members of component societies, which societies have requested that active members who have reached advanced years and have long served the Association and the profession be made Honor members of the Association. They shall enjoy all the privileges of active membership and shall be exempt from the payment of dues.

Sec. 4. Associate members shall be limited to persons not provided for in the various classes of membership who are engaged in the pursuit of a medical or allied science, and by action of the component societies, become Associate members of the Association. This shall include physicians who meet medical examiners' qualifications but have not received their citizenship, these Associate members to apply for Active membership within one year after citizenship is granted. Associate members shall have the right to attend scientific sessions and such other privileges as may be extended to them by the House of Delegates. They shall not be eligible to vote and shall be exempt from the payment of dues.

Chapter II. General Meetings

Section 1. The General Meetings shall be open to all registered members and guests.

Sec. 2. All papers read before this Association shall be its property. Each paper, when it has been read, shall be deposited with the Secretary. Authors of papers read before this Association shall not cause them to be published elsewhere until after they have been published in its Journal.

Sec. 3. No person in the active practice of medicine in the State of Missouri shall appear on the program of the Association unless he or she is a member of the Missouri State Medical Association or an affiliated association or organization.

Chapter III. House of Delegates

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session. It shall remain in continuous session on the first day of the Annual Session and complete the work coming before it at that session. It shall meet on the last day of the Annual Session to receive the report of the Nominating Committee and complete unfinished business and the election of officers. No new business shall be introduced at the last session without the unanimous consent of the delegates.

Sec. 2. Each component county society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each fifty full paid members or fraction thereof in the Association on December 31 of the previous year; provided, however, that each component society which is composed of two or more county societies shall be entitled to at least one delegate or one alternate from each of the counties of which it is composed; however, such delegates or alternates must reside in the county they represent.

Sec. 3. Forty delegates shall constitute a quorum of the House of Delegates. All meetings of the House of Delegates shall be open to members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker shall appoint reference committees to which reports and resolutions, on a majority vote of the House of Delegates, shall be referred as follows:

Reference Committee on Amendments to the Constitution and By-laws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

Reference Committee on Reports of Officers.

The Speaker may appoint such other reference committees as he may deem necessary, upon approval of the House of Delegates.

The President shall appoint a Committee on Credentials.

Sec. 5. The House of Delegates shall elect delegates and alternates to the House of Delegats of the American Medical Association in accordance with the Constitution and By-laws of that body.

Sec. 6. The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate on their reports.

Sec. 8. The House of Delegates shall receive and act upon a complete and detailed annual audit of receipts and expenses of the preceding year and a proposed budget for the current calendar year which shall have been prepared by the Council and submitted to the component county societies at least four weeks prior to the Annual Session. These shall be published in the Journal.

Sec. 9. The following shall be the general order of business of the House of Delegates for the first meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of officers.
6. Report of committees.
7. Unfinished business.
8. New business.

The following shall be the general order of business of the House of Delegates for the last meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of the Nominating Committee.
6. Election of officers.
7. Reports of officers.
8. Reports of committees.
9. Unfinished business.
10. New business (see Sec. 1, Chap. III).
11. Installation of officers.

12. President's appointments and installation of members to committees.
13. Selection of the place for the next Annual Session.

At any meeting of the House of Delegates, the order of business may be changed by a two thirds affirmative vote of the members present and voting.

CHAPTER IV. ELECTION OF OFFICERS

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Sec. 2. All elections of officers shall be by acclamation unless ballot is called for. A majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association, who shall be elected as follows:

In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the votes, the nominees shall be declared elected in the order of the highest number of votes received until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

Sec. 3. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Sec. 4. Delegates present at the Annual Session from Councilor Districts whose Councilors' terms expire shall hold meetings on or before the morning of the last day of the Annual Session and elect a Councilor for their District for a term of two years. The name of the elected Councilor shall be given on a prescribed form to the Secretary for presentation to the House of Delegates. Each candidate for Councilor must reside or practice in the district for which he is elected.

Sec. 5. The Speaker and Vice Speaker shall not serve more than three consecutive terms.

Sec. 6. The Speaker shall appoint a parliamentarian to serve as such during the session of the House of Delegates at each Annual Session and upon whom the Speaker may call before deciding points of order or procedure.

CHAPTER V. DUTIES OF OFFICERS

Section 1. The President, or his designated representative, shall preside at all scientific sessions of the Association. He shall preside at the House of Delegates in the absence of the Speaker or Vice Speaker and until their successors are elected. He shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2. The President and the President-Elect shall be members of the Council and shall attend all meetings of the Council. Should the office of President-Elect become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

Sec. 3. The Vice Presidents shall assist the President in the discharge of his duties. In the event of the death, resignation or removal of the President the Council shall select one of the Vice Presidents to serve the unexpired term.

Sec. 4. The Treasurer shall give bond in the sum of $20,000. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

Sec. 5. The Secretary shall attend the General Meetings of the Association and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be Secretary of the Council and shall keep a record of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a card index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its Secretary each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report to the House of Delegates. He shall supply all component societies with the necessary blanks for making their reports and shall collect from them the regular per capita dues and assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

CHAPTER VI. COUNCIL

Section 1. The Council shall meet during the Annual Session at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exists, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make reports of his work and the condition of the profession of each county in his district to the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, but this shall not include his expense in attending the Annual Session of the Association. No Councilor shall be eligible for the position of Delegate to the House of Delegates during his term of office as Councilor, nor shall he vote in the House of Delegates.

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-laws.

Sec. 4. The Council shall be the Board of Censors of the Association. It shall hear, and by a majority vote, determine and adjudicate, all questions: Involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association; of an ethical nature brought before the House of Delegates or the General Meeting, which shall be referred to the Council without discussion; of discipline affecting the conduct of members or component societies from which an appeal is taken from the decision of a District Councilor. Its decision in all cases shall be final, unless appealed to the then convened meeting, or to the next meeting, of the House of Delegates.

Sec. 5. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Association. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-laws.

Sec. 6. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 7. The Council shall provide for and supervise the issuance of all publications of the Association including proceedings, transactions and memoirs, and shall have authority to appoint an Editor and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Appropriations, shall audit all accounts of this Association. The Council shall adopt an annual budget providing for the necessary expenses of the Association for the following calendar year. This budget shall be prepared and presented for consideration in the last quarter of each year by the Committee on Auditing and Appropriations. A complete and detailed report shall be submitted to the component county medical societies as provided in Section 8, Chapter III. The Council shall submit an annual report to the House of Delegates which shall specify the character and cost of the publications of the Association, the amount and character of all its property, and shall provide full information concerning the management of all affairs of the Association which the Council is charged to administer.

Sec. 8. The Council shall appoint at least six months before the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a general chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held. and who shall appoint and organize from the members of this county society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall provide suitable meeting places and shall have general charge of all local arrangements subject to the approval of the Committee on Arrangements for the Annual Session. All receipts and disbursements related to the Annual Session shall be handled by the Committee on Arrangements on recommendations of the Committee on Budget and Appropriations.

Sec. 9. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between Annual Sessions of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

Sec. 10. The salaries of all employees of the Association shall be fixed by the Council.

Sec. 11. The Council shall provide such headquarters for the Association as may be required to conduct its business properly.

Sec. 12. The Council shall be empowered to elect an Executive Secretary and Assistant Executive Secretary and such other personnel as may be necessary, who need not be members of the Missouri State Medical Association, each of whom shall perform such duties as the Council may designate and receive such salary and serve for such periods and under such conditions as the Council may determine.

CHAPTER VII. COMMITTEES

Section 1. The Committees of the Association shall be standing committees and special committees.

Sec. 2. The standing committees, unless otherwise provided in these By-laws, shall consist of five members serving three year terms and shall be:

A Committee on Scientific and Postgraduate Work.
A Committee on Publication.
A Committee on Medical Defense.
A Committee on Medical Education and Hospitals.
A Committee on Medical Economics.
A Committee on Cancer.
A Committee on Public Policy and Public Relations.
A Committee on Maternal Welfare.
A Committee on Infant and Child Care.
A Committee on Mental Health.
A Committee on Constitution and By-laws.
A Committee on Health and Public Instruction (McAlester Foundation).
A Committee on Control of Venereal Disease.
A Committee on Fractures.
A Committee on Conservation of Eyesight.
A Committee on Diabetes Mellitus.
A Committee on Anesthesiology.
A Committee on Hospital and Professional Relations.

A Committee on Laboratory Medicine.

A Committee on Civil Defense.

A Committee on Physical Medicine and Rehabilitation.

The Committee on Scientific and Postgraduate Work shall consist of three members, of which the Secretary shall be one, and shall determine the character and scope of the scientific proceedings of the Association for each Annual Session subject to the instructions of the House of Delegates. The Committee shall provide speakers for district society meetings as requested.

The Committee on Publication shall include the Editor or Acting Editor. The Committee shall be appointed by the Council annually. The chairman shall be designated by the Council. It shall have referred to it all reports on scientific subjects and all scientific papers and discussions heard before the Association. It shall be empowered to curtail, abstract or reject papers and discussions. It shall arrange for the publication and distribution of the Journal.

The Committee on Medical Defense shall, upon request accompanied by complete history of the case and copy of plaintiff's petition if filed, advise and aid any member in good standing who has had filed against him individually a civil malpractice suit and may recommend assistance in defraying costs to an amount not to exceed $300.00. The Association shall not be obligated to pay, nor shall it pay, either in whole or in part, any sum agreed upon in compromise, nor any judgment or part thereof, nor shall it pay any of the costs of taking depositions nor any court costs. No member shall be entitled to this defense should the charge of malpractice be brought jointly against him and a hospital or sanatorium in which he is, or at the time of the alleged malpractice was, financially interested.

The Committee on Medical Education and Hospitals shall serve in the state for the Council on Medical Education and Hospitals of the American Medical Association and shall have referred to it all questions pertaining to hospitals and medical education.

The Committee on Medical Economics shall investigate matters affecting the economic status of medicine and shall report annually to the House of Delegates such recommendations as may, in its judgment, seem proper.

The Committee on Cancer shall investigate the facilities provided for the care of the cancer sufferer and for the study of cancer in the State of Missouri and shall cooperate with the American Society for the Control of Cancer and other ethical organizations for cancer control to the end that authentic information in regard to diagnosis and treatment of cancer be properly disseminated throughout the State of Missouri.

The Committee on Public Policy and Public Relations shall consist of ten members of the Association appointed annually by the President, one from each of the ten Councilor Districts; the President and President-Elect of the Association and one elected member of the Council shall serve as ex officio members of the Committee. There shall be a joint meeting of this Committee and auxiliary committee as provided for in Chapter XI, Sec. 10, of these By-laws, held annually, as may be ordered on the call of the chairman or six members of the Committee. The Chairman of the Committee, and in his absence the President, shall act as Chairman at the joint committee meetings. Under the direction of the State Committee, the joint committee shall concern itself with promoting good relations between the profession and the public, and in procuring public cooperation in the interests of public health and scientific medicine.

The Committee on Maternal Welfare shall keep in touch with and investigate matters concerning maternal and child welfare. It shall carry on activities in the field of maternal and child welfare and in cooperation with the Committee on Scientific and Postgraduate Work and the Division of Child Hygiene of the State Division of Health shall conduct postgraduate courses for the profession and disseminate information of an educational nature.

The Committee on Infant and Child Care shall consist of ten members, one from each of the ten Councilor Districts, appointed annually by the President. The Committee shall concern itself with the betterment of infant and child care and shall be a liaison with the Bureau of Child Hygiene of the State Division of Health. The Committee shall study and make recommendations regarding various public, private and parochial school health programs in this state.

The Committee on Mental Health shall be composed of ten members not all of whom are specialists in psychiatry and shall engage in the promotion of good mental health, the prevention of mental ill health and lend its support toward securing cooperation of all state or governmental agencies in obtaining better treatment of the mentally ill. It shall cooperate with the Committee on Mental Health of the American Medical Association and with the Division of Mental Diseases of the State of Missouri.

The Committee on Constitution and By-laws shall propose such amendments to the Constitution and By-laws as are deemed wise and expedient, and bring before the House of Delegates such amendments as it or other members of the Association may present for consideration.

The Committee on Health and Public Instruction (McAlester Foundation) shall keep in touch with and investigate matters concerned with the public health and carry on such activities in the field of public health and the dissemination of information to lay groups in relation thereto as may be deemed appropriate; and shall cooperate with the Bureau of Health and Public Instruction of the American Medical Association and the Division of Health of the State of Missouri.

The Committee on Control of Venereal Disease shall review the available information on the venereal disease problem, assemble additional information concerning the nature and extent of the facilities which now exist for the diagnosis, recommend such supplemental and new state or local facilities and measures as seem desirable in dealing with these infections and to cooperate fully with the State Division of Health and the United States Public Health Service in carrying out such venereal disease programs as have been or may in the future be established.

The Committee on Fractures shall disseminate information regarding the current and approved methods of handling fractures and stimulate interest therein, such information to be disseminated to licensed practitioners of medicine and to lay groups approved by the Committee. It shall correlate its programs with those of the Committee on Scientific and Postgraduate Work. The chairman of the Committee shall have the right to appoint three junior members to work under his direction.

The Committee on Conservation of Eyesight shall promote and maintain an educational program in each Councilor District, before medical and lay audiences, relative to ocular hygiene, conservation of eyesight and prevention of blindness. It shall correlate its program with that of the Committee on Scientific and Postgraduate Work and the local, state and national associations or societies for the prevention of blindness. The Committee may have associate members as the Committee may deem advisable.

The Committee on Diabetes Mellitus shall keep in touch with and investigate matters concerned with diabetes mellitus and carry out such activities as may be deemed appropriate.

The Committee on Anesthesiology shall study matters concerned with anesthesiology and carry out such activities as may be deemed appropriate.

The Committee on Hospital and Professional Relations shall consider matters relating to the practice of medicine in hospitals.

The Committee on Laboratory Medicine shall study all matters pertaining to pathology including the following subdivisions: postmortem pathology, surgical pathology, exfoliative cytology, medical bacteriology, parasitology, virology, mycology, serology, hematology, chemistry, toxicology, clinical microscopy and blood banking. On the basis of such studies, the Committee shall report annually to the House of Delegates and to the Council whenever necessary and shall make such recommendations as may in its judgment seem proper.

The Committee on Civil Defense shall consist of ten members of the Association, appointed annually by the President, one from each of the ten Councilor Districts, and, in addition, any other members who are interested in the medical aspects of Civil Defense; the Committee shall concern itself with the development of Civil Defense operations in the state and shall cooperate with public officials and private organizations in the furtherance of Medical Civil Defense activities.

The Committee on Physical Medicine and Rehabilitation shall consider matters concerned with physical medicine and with rehabilitation, including vocational rehabilitation.

Sec. 3. Special committees may be appointed by the President or the Council as circumstances may demand.

Chapter VIII. Dues and Assessments

Section 1. The annual dues of this Association shall be $35.00, which shall be applicable to each active member of the Association and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be one half of the per capita levy for active members; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

Sec. 2. One dollar of the annual dues shall be credited to the account of the Journal for each member's annual subscription. The remainder of the amount shall be credited to the general fund of the Association.

Sec. 3. The House of Delegates may, when in its judgment the best interest of the Association demands, recommend an assessment on each active member. Such assessment shall be levied only by consent of two thirds of the members of the House of Delegates present and voting. Funds obtained from such special assessments shall be allocated only for the purposes for which such assessment is levied and in accordance with substantiating budgets. Unexpended balances from such assessments must be reported to the House of Delegates for re-allocation.

Sec. 4. The secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Any member whose name has not been reported for enrollment and whose dues have not been remitted to the Treasurer of this Association on or before March 1 shall stand suspended until his name is properly reported and his dues for the current year are paid. On December 31 of each year, members delinquent in payment of dues, and assessment if such has been made, or any part thereof shall, ipso facto, forfeit their memberships. No suspended member shall be eligible to register at an annual session.

Chapter IX. Rules of Conduct

The ethical principles governing the members of the American Medical Association shall govern members of this Association.

Chapter X. Rules of Order

The deliberations of this Association shall be conducted in accordance with parliamentary usage as defined in *Robert's Rules of Order.*

Chapter XI. County Societies

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and By-laws shall, upon application to the Council, receive charters from this Association, provided that their Constitutions and By-laws shall have been submitted to the Council and received its approval.

Sec. 2. Only one component medical society shall be chartered in each county.

Sec. 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Association. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who resides or practices in the same county, who shall apply for membership on the prescribed form and subscribe for the Journal and pay the annual dues and assessments for the current year, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Association shall have final authority to expel a member should a component county society fail to do so after being so requested by the Council.

The Council may upon request of a component society remit the state dues and assessment of a member who has become totally and permanently incapacitated through mental or physical disability and has been a member in good standing during the three consecutive years immediatly preceding his disability; provided, that the component society shall remit the county society dues of such member.

The Council may, upon the request of a component society, waive the dues of any member in good standing for such a period as the member is serving in the Armed Forces of the United States of America, or similar service with any of the allies of the United States, and for six months thereafter.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination.

Sec. 5. In hearing appeals the Council may admit oral or written evidence or both as in its judgment will most fairly present the facts.

Sec. 6. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified and in the State Association to the end of the period for which his dues have been paid.

A member of a component society who moves to and engages in the practice of medicine at a location in another county in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society in the county to which he has moved.

Sec. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

Sec. 8. At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter III, Section 2 of these By-laws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

Sec. 9. The secretary of each county society shall keep a roster of its members and, if practicable, a list of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary by the Council. He shall send a copy of the program of each meeting to his district councilor and to the Secretary of the State Association.

Sec. 10. Each county society shall appoint or elect one of its members as a member of the auxiliary committee on Public Policy and Public Relations, and the county society secretary shall send his name and address to the Secretary of this Association. The Committee on Public Policy and Public Relations of this Association shall formulate the duties of the auxiliary committee and supply each member with a copy. The auxiliary committeemen shall be accountable to their county societies and to the Council for prompt response to and continued cooperation with the Committee on Public Policy and Public Relations of this Association.

Sec. 11. Any county component society, in a manner approved by the State Association, or the State Association with the consent of the county society or societies affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups, and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment.

Chapter XII. Amendments

Section 1. These By-laws may be amended at any Annual Session by a two thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Sec. 2. Upon the adoption of this Constitution and these By-laws all previous constitutions and by-laws are thereby repealed.

BOOK REVIEW

Handbook of Pediatric Medical Emergencies. Adolph G. DeSanctis, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Post-Graduate Medical School, New York University-Bellevue Medical Center; Director of Pediatrics, University Hospital, New York University-Bellevue Medical Center; Director of Pediatrics, Gouverneur Hospital, New York City. With the collaboration of Charles Varga, M.D., Portland, Oregon and Ten Contributors. With 73 Illustrations. Second Edition. The C. V. Mosby Company, St. Louis. 1956. Price $6.25.

A rather unusual achievement is represented by this small volume. A great deal of highly useful information is compiled neatly, in compact form. The authors have outlined a complete list of emergencies. The focus is on the pediatric age group, but a great many parts would prove valuable for any practicing physician. The book is written in twelve sections, including cardiovascular, metabolic, genitourinary, neurologic and respiratory emergencies; miscellaneous emergencies containing detailed treatment of bites, a nice section with illustrations on pediatric procedures, and a most helpful chapter on poisoning.

The authors have eliminated all extraneous material possible, and have written largely in outline form. There are numerous tables of dosages, normal values, antidotes for poisons and others. These are easy to refer to in a hurry and yet they are complete. The illustrations and diagrams are helpful.

This book would be most useful in any office where pediatric emergencies are encountered. G.K.

WHEN YOU TREAT INFECTIONS IN PATIENTS SUCH AS THESE

- debilitated
- elderly
- diabetics
- infants, especially prematures
- those on corticoids
- those who developed moniliasis on previous broad-spectrum therapy
- those on prolonged and/or high antibiotic dosage
- women—especially if pregnant or diabetic

the best broad-spectrum antibiotic to use is

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Sumycin plus Mycostatin

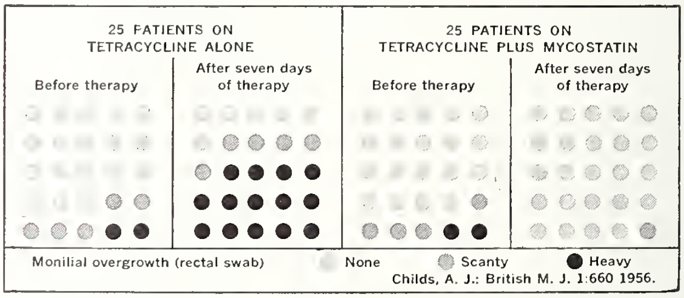
for practical purposes, Mysteclin-V is sodium-free

for "built-in" safety, Mysteclin-V combines:

1. Tetracycline phosphate complex (Sumycin) for superior initial tetracycline blood levels, assuring fast transport of adequate tetracycline to the infection site.

2. Mycostatin–the first safe antifungal antibiotic–for its specific antimonilial activity. Mycostatin protects many patients (see above) who are particularly prone to monilial complications when on broad-spectrum therapy.

MYSTECLIN-V PREVENTS MONILIAL OVERGROWTH



Childs, A. J.: British M. J. 1:660 1956.

Capsules (250 mg./250,000 u.), bottles of 16 and 100. *Half-Strength Capsules* (125 mg./125,000 u.), bottles of 16 and 100. *Suspension* (125 mg./125,000 u.), 2 oz. bottles. *Pediatric Drops* (100 mg./100,000 u.), 10 cc. dropper bottles.

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Squibb Quality—the Priceless Ingredient

'MYSTECLIN,'® 'MYCOSTATIN',® AND 'SUMYCIN' ARE SQUIBB TRADEMARKS

WHY SENSITIZE

in topical and ophthalmic infections

USE 'POLYSPORIN'® brand

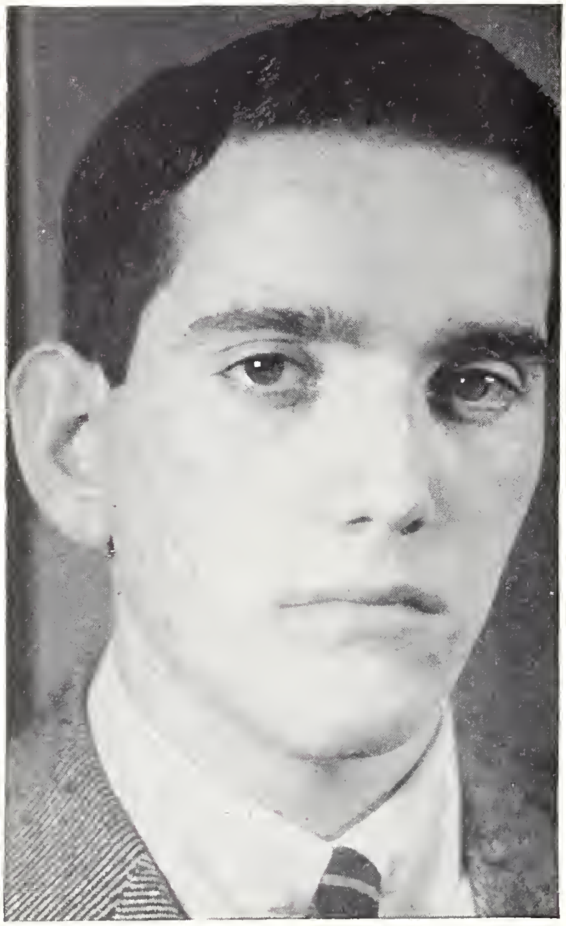
POLYMYXIN B—BACITRACIN OINTMENT

to insure broad-spectrum therapy with minimum allergenicity

For topical use: in ½ oz. and 1 oz. tubes.
For ophthalmic use: in ⅛ oz. tubes.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

Superior for acne cleansing



The greatest benefit in acne therapy comes to those patients who use pHisoHex® often and daily in conjunction with other standard measures.

For best results, prescribe from four to six pHisoHex washings of the acne area daily.

pHisoHex cleans better than soap, degerms rapidly, prevents bacterial growth, and maintains normal skin pH.

pHisoHex®

Sudsing, nonalkaline antibacterial detergent— nonirritating, hypoallergenic. Contains 3% hexachlorophene.

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New York 18, N.Y.

pHisoHex, trademark reg. U. S. Pat. Off.

Urge Caution With X-ray

(Continued from page 64)

turopath, without the slightest radiological experience, can obtain and use x-ray equipment for any examination he may choose."

He emphasized that he didn't "want to give the impression that all physicians who are using x-ray without formal training are using it unnecessarily or inefficiently."

A group of health specialists recently urged parents to "refrain from pressing for x-rays of their children when the physician or dentist did not recommend them."

At the session called by the Children's Bureau, the radiologists, pediatricians, obstetricians, and dentists appealed for restraint in the use of diagnostic x-rays of pregnant women.

A pessimistic view of the wide range of radiation perils also was given recently by Dr. Charles L. Dunham, director of the division of biology and medicine of the Atomic Energy Commission.

In a speech before the American Chemical Society meeting at the University of Delaware, he touched on radiation injury, removal of internally deposited radionucleides, burns, inhalation of radioactive materials, chronic low-dose exposures, leukemia and other problems.

Much more information is needed, said Dr. Dunham, in methods of treating and controlling radiation injury and contamination by radioactive materials.

We also need more precise definition of efforts of any given type and rate of exposure to radiation on the human organism and more precise evaluation of effects so as to determine which are irreparable and which vulnerable to therapy, he added.

New Members

Bryant, William O., M.D., Hayti. Pemiscot County Medical Society.

Cassel, William J., Jr., M.D., State Office Building, Jefferson City. Cole County Medical Society.

Galeota, William R., M.D., 21 Westridge Drive, Columbia. Boone County Medical Society.

Glass, William J., Jr., M.D., Monett. Ozarks County Medical Society.

LaSalle, Michael W., M.D., 1300 Main Street, Trenton. Grand River Medical Society.

Revare, Paul, M.D., 2025 Swift Avenue, North Kansas City. Clay County Medical Society.

Royce, J. J., M.D., East Main Street, Noel. Ozarks County Medical Society.

Just in case you have a giraffe for a patient, pause and reflect for a moment before you start treating his hypertension. Average normal blood pressure for these elongated individuals is reported to average about 300/175.

More than half of the new cases of tuberculosis in the United States are in persons over 45. And approximately twice as many men as women die from the disease.

STOP respiratory congestion orally

relief in minutes..lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

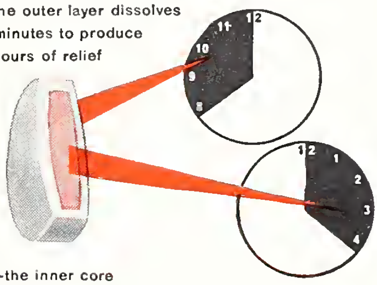
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: 1 tablet in the morning, afternoon, and in the evening if needed.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours—provides "around-the-clock" freedom from congestion on just three tablets a day


first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief
11
12
10
9
8
12
1
2
3
4
then—the inner core disintegrates to give 3 to 4 more hours of relief

Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

Triaminic® *"timed-release" tablets*

STOP *running noses . . . and open stuffed noses orally*

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From the Medical Schools

SAINT LOUIS UNIVERSITY

Appointments

Ten faculty members have been added to the Medical School of Saint Louis University. They are: Dr. Donald Bandle, instructor in neurology and psychiatry, who was awarded his M.A. Degree from Washington University in 1948 and his M.D. Degree from Saint Louis University in 1953; Dr. Donald A. Bindbeutel, instructor in surgery, who recently completed his residency in general surgery at City Hospital; Dr. John L. Bircher, assistant in radiology, who completed his residency in radiology in 1957 at the St. Mary's Group of Hospitals; Dr. Albert L. Bonfanti, instructor in gynecology and obstetrics, former instructor in pediatrics at St. Anthony's and Hadley Memorial hospitals, Hays, Kansas; Dr. John J. Budd, instructor in internal medicine, who served as chief resident in internal medicine at Firmin Desloge Hospital last year; Dr. Richard J. Dames, instructor in internal medicine, who was awarded his M.D. Degree from Saint Louis University in 1951; Dr. Harry McClean, assistant in medicine, formerly a resident at Geisinger Memorial Hospital in Danville, Pa.; Dr. John M. McCarthy, instructor in internal medicine, who was awarded his M.D. Degree from Saint Louis University in 1953; Mr. Sotiros D. Chaparas, assistant in microbiology, who is completing requirements for a doctorate degree and Dr. Richard L. Sterkel, senior instructor in internal medicine, formerly instructor in internal medicine, University of Chicago.

Lectures

Three members of the faculty attended the Seventh Congress of the Pan Pacific Surgical Association held in Honolulu November 15 to 22. Dr. C. Rollins Hanlon, director of the department of surgery, served as a moderator of a panel discussion titled "Visualization—X-Ray Diagnosis of Diseases of the Gall Bladder and Bile Ducts." He also presented a paper on "Operative Cholangiography," which included a report of his studies at Saint Louis University. Also in attendance at the conference were: Dr. Joseph A. Hardy, Jr., director of the department of gynecology and obstetrics, and Dr. James F. Dowd, senior instructor in surgery.

Dr. Malcolm H. Merrill, Director of Public Health, State of California, and member of the Official Exchange Mission of the United States Public Health Service to the U.S.S.R., delivered an official report on the health facilities of the Soviet Union before the faculty of the School of Medicine November 18. During the past summer Dr. Merrill was one of the five physicians who went on a four-week exchange mission to the U.S.S.R. to study prevailing health conditions and practices. His lecture was based on his personal participation in an official and comprehensive survey of the health facilities of the Soviet Union. Dr. Merrill came to St. Louis to receive a special Alumni merit award from Saint Louis University in connection with Founder's Day. He was awarded an M.D. Degree from the School of Medicine in 1932.

New Post

Dr. Walter J. Burdette, professor of clinical surgery, and director of the Saint Louis University Surgical Service at Veterans Hospital, has accepted a post with the University of Utah College of Medicine, Salt Lake City, Utah. He has been appointed director of the department of surgery at the University of Utah College of Medicine and Chief of Surgery at Salt Lake General Hospital.

Grant

Dr. Alfred W. Richardson, associate professor of physiology at the Saint Louis University School of Medicine, has been awarded a grant renewal of $10,000 by the Office of Naval Research for research on biological effects of microwaves of radar frequencies. Under the grant, Dr. Richardson is studying biological changes in albino rats exposed to an excessive magnitude of radar. In this way, he is determining what would happen to humans exposed to the same conditions. The basic purpose of his research is to see that thousands of workers in radar fields, industry and the Armed Forces are assured of safety.

Alpha Omega Alpha

Thirteen students at the School of Medicine have been elected to membership in the University's Chapter of Alpha Omega Alpha, national honorary medical society. The election to membership included seven senior medical students and six junior medical students, who were initiated at a dinner following the annual Alphonse M. Schwitalla lecture held Dec. 11.

Seniors elected were: John M. Cary, Hannibal, Mo.; Norman D. Duley, Jr., Kansas City, Mo.; Richard C. Hard, Jr., Springfield, Ill.; William J. Hennessy, San Jose, Calif.; Cornelius J. O'Connor, North Tonawonda, N. Y.; Vincent G. Palermo, Tampa, Fla., and Wilma I. Winter, St. Louis.

Juniors elected were: James W. Barrow, Youngstown, Ohio; John R. Hogan, St. Louis; Alan Kaye, St. Louis; John C. Schultz, Little Rock, Ark.; Martin F. Stein, Cleveland, Ohio, and Reginald Chi Shing Ho, Oahu, Hawaii.

Each year a select number of the senior and junior class is approved for candidacy by the officers of the school and elections are made by the active members of the chapter. Membership is based on scholarship, character and personality.

WASHINGTON UNIVERSITY

Elections

Dr. James Barrett Brown, professor of clinical surgery, was elected president of the Western Surgical Association at the association's recent meeting in Salt Lake City. Dr. Brown is a medical graduate of Washington University and has served on the faculty since his graduation in 1923.

Dr. Justin J. Cordonnier, professor of urology, recently took office as president of the South Central section of the American Urological Society. Urologists from eight states and Mexico attended the annual meeting in Oklahoma City.

Dr. Wendell G. Scott was elected a director of the American Cancer Society at its recent annual meeting in New York. Dr. Scott, professor of clinical radiology, also is chairman of the committee on radiology of the National Research Council and president of the American Roentgen Ray Society.

symptomatic relief . . . plus!

Achrocidin*

TETRACYCLINE-ANTIHISTAMINE-ANALGESIC COMPOUND

ACHROCIDIN is a well-balanced, comprehensive formula for treating acute upper respiratory infections.

Debilitating symptoms of malaise, headache, pain, mucosal and nasal discharge are rapidly relieved.

Early, potent therapy is offered against disabling complications to which the patient may be highly vulnerable, particularly during febrile respiratory epidemics or when questionable middle ear, pulmonary, nephritic, or rheumatic signs are present.

ACHROCIDIN is convenient for you to prescribe—easy for the patient to take. Average adult dose: two tablets, or teaspoonfuls of syrup, three or four times daily.

tablets

ACHROMYCIN ® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottle of 24 tablets

syrup

Each teaspoonful (5 cc.) contains:

ACHROMYCIN ® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Available on prescription only

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*Reg. U. S. Pat. Off.

Dr. Louis T. Byars was chosen president-elect of the American Society of Plastic and Reconstructive Surgery at its annual convention in San Francisco, it was announced November 8. Dr. Byars is an associate professor of clinical surgery at Washington University School of Medicine.

Dr. John R. Smith, associate professor of medicine, has been named to the cardiovascular study section of the National Heart Institute. Section members examine and make recommendations on all applications for grants in heart research.

Dr. J. Neal Middelkamp, assistant professor of pediatrics, recently was elected president of the St. Louis Pediatric Society. Dr. Barbara Jones, instructor in pediatrics, was named secretary.

Honor

The late Dr. Robert Elman, who was professor of clinical surgery at the time of his death December 23, 1956, was named recipient of the 1957 Page One Civic Award of the St. Louis Newspaper Guild, AFL-CIO. Dr. William H. Sinkler, assistant professor of clinical surgery and medical director of Homer G. Phillips Hospital, accepted the award recently for the late Dr. Elman. Guild President Herbert L. Monk said Dr. Elman was honored for his voluntary work over the decade before his death in improving Homer G. Phillips Hospital and in contributing to the better training of physicians and surgeons. The Page One Civic Award, presented annually by the Newspaper Guild since 1948, is made each year to a citizen outside the newspaper field who has rendered exceptional community service which has not been publicly recognized or which has been inadequately recognized.

Meetings

Four research papers were presented and officers elected at a meeting of the Washington University Medical Society, December 4, at the Medical Center. Dr. Albert Roos, associate professor of physiology and of physiology in surgery, reported on "Contributions to Pulmonary Hemodynamics," and Dr. W. Stanley Hartroft, Mallinckrodt professor and chairman of the department of pathology, discussed "Diet, Clot-Lysis, and Cardiovascular Lysis in Experimental Animals." This paper was written by Dr. Hartroft, Dr. Wilbur A. Thomas, associate professor of pathology; and Dr. Robert M. O'Neal, assistant professor of pathology. A paper on "Lysogeny—An Hereditary Lethal Disease in Bacteria" was presented by Dr. Armin Dale Kaiser, instructor in microbiology. Dr. Lillian Recant, assistant professor of medicine and of preventive medicine, gave the final paper on "An Hepatic Mechanism for Tolbutamide-Hypoglycemia in Animal and Human Subjects," prepared in collaboration with Dr. George L. Fischer, instructor in medicine and in preventive medicine.

Dr. James J. Nickson, professor of radiology and chairman of the department of radiation therapy at the Memorial Center, New York, discussed "Some Aspects of Radiobiology in Radiation Therapy," November 22, at the Medical Center. The lecture was sponsored by the Medical Education for National Defense group at Washington University School of Medicine, which was organized in January, 1956. It is part of a national organization to promote better cooperation between medical schools and the Armed Forces. There are 45 such groups in medical schools in this country, and 10 additional schools are permitted to join each year. Dr. Carl A. Moyer, Bixby professor and chairman of the department of surgery, and Dr. Harvey L. White, professor and chairman of the department of physiology, are coordinators for the organization at the medical school.

Grant

Washington University School of Medicine received a recent grant of $14,425 for assistance in the field of medicine from the Atomic Energy Commission. The grant was among 11 given to educational institutions to equip laboratories for training in the application of nuclear technology to various sciences. The institutions received grants totaling $160,443.

UNIVERSITY OF MISSOURI

New Addition to Medical Center

The University of Missouri has received a grant of $373,000 from the National Institutes of Health division of the U.S. Department of Health, Education and Welfare for construction of an addition to the new Medical Center of the University to house clinical research facilities of the School of Medicine. Dean Roscoe L. Pullen said the grant, together with about $425,000 which the School of Medicine has available from a number of unrestricted gifts and grants and other sources including a balance left on hand from the original appropriation for construction of the new Medical Center, will be utilized to construct a five-story addition to the Medical Sciences Building corridor, and also to construct an underground laboratory to house the new 2,000,000 volt Van de Graaff X-ray generator which has been given to the School of Medicine by the Donner Foundation of Philadelphia. Total cost of the new construction will be approximately $800,000 according to University estimates. Dean Pullen said the new addition to the Medical Sciences Building will be used entirely for research facilities, enabling the School of Medicine to develop considerable expansion in research in many fields of health and health related sciences. Basic research along various lines will also be pursued in both the basic science departments and the clinical departments, he added.

Medical School Enrollment

There were 204 students in the medical school at the University of Missouri on November 1, 1957. This number includes only M.D. candidates and does not include the 186 students in the School of Nursing or the more than 1,000 students from other school and colleges of the University who are registered for courses in the Basic Science Departments. The students are divided among the four classes as follows: first year, 75; second year, 65; third year, 31, and fourth year, 33.

All of the students in the Medical School, with the exception of three, graduated from high schools in Missouri, and all the 240 students are residents of the state.

A total of 29 of the medical students listed Boone County as their official home residence. Of this number, eleven graduated from Boone County high schools; fifteen graduated from high schools elsewhere in Missouri. These fifteen are listed according to the locations of the high schools from which they grad-

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets third Friday of each month.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—third Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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uated. The three who graduated from high schools outside of Missouri (one from North Dakota, one from Illinois, and one from Michigan) are listed as Boone County residents, which they are in every sense of the word, together with the eleven students who graduated from Boone County high schools.

In all publicly-supported colleges and universities, there is always a heavy enrollment of students from the county in which the particular institution is located. This is true in respect to the Medical School enrollment of Boone County residents, and, of course, the same situation exists for other divisions of the University.

The table of figures following shows that the enrollment of students in the School of Medicine is distributed over the state in much the same way as the total population is distributed. The percentage of medical school enrollment from the central Missouri area is a little higher than the area's percentage of the state's population. This perhaps can be accounted for, at least in part, by the central location of the University. From the St. Louis area, the percentage of the medical school enrollment is a little lower than the percentage of population. This probably is due to the fact that medical schools exist in St. Louis.

The evidence seems conclusive that the Medical School is serving the entire state on an equitable basis and that the Medical School's policies and practices in respect to the admission of students are sound and are being administered well.

Area Name	*1950 Population*	*Per Cent State Pop.*	*Medical Students*	*Per Cent Total Med. Enrollment*
Northwest (17 counties)	293,199	7.4	14	6.86
Northeast (18 counties)	255,826	6.5	13	6.37
Kansas City Area (3 counties)	601,229	15.2	31	15.20
Central Area (23 counties)	440,510	11.1	42	20.59
St. Louis Area (City & 3 counties)	1,330,986	33.7	55	26.96
Southwest (18 counties)	416,256	10.5	20	9.81
South Central (13 counties)	180,718	4.6	9	4.41
Southeast (19 counties)	435,929	11.0	20	9.80
Totals	3,954.653	100.0	204	100.00

Meetings Held at the Medical Center

A meeting of the Pre-Medical Advisors and Deans of Colleges and Universities throughout the State of Missouri was held on November 16 at the University of Missouri School of Medicine and Medical Center. Introductions of visiting members of the Medical faculty were made and followed by informal brief discussions of possible plans for future meetings to discuss mutual problems. Dean Pullen and Assistant Dean Engley spoke to the group about the medical students' training program at the University of Missouri. Those attending were also given a tour of the new Medical Center. Fourteen colleges were represented at the meeting as follows: Southeast Missouri State, Lincoln University, Westminister College, Kemper Military Academy, Trenton Junior College, Central Missouri State, William Woods College, William Jewell College, University of Missouri, Rockhurst College, Kansas City University, Southwest Missouri State, Central College, Missouri Valley.

Visitors

Dr. Alexander Stewart Douglas, Professor of Medicine, Department of Medicine, Royal Infirmary, Glasgow, Scotland, visited the University of Missouri Medical Center on October 19, 1957. A clinic on Coagulation Problems was held for all interested staff members and students.

Dr. Charles P. Bailey, Professor and Chairman of the Department of Thoracic Surgery at Hahnemann Medical College, visited the campus on October 30. Dr. Bailey made an interesting address to the medical students and faculty on the topic of "History of Heart Surgery."

Trips and Talks

Dr. Roscoe L. Pullen, Dean of the University of Missouri School of Medicine, was moderator for the symposium on Chest Diseases held during the meeting of the Missouri Academy of General Practice on October 31, in Jefferson City. The meeting was attended by the professional membership of the Academy. Dr. Pullen spoke at the Capping Exercises for the class of 1960 of the School of Nursing on the subject "Nursing in Modern Society." The exercises were held on November 10, in Jesse Auditorium of the University of Missouri. On November 13, Dr. Pullen spoke at the Lion's Club meeting held at the Daniel Boone Hotel on the subject "Developments of the University of Missouri Medical Center." Approximately 50 persons attended the meeting. Dr. Pullen spoke at a meeting of the Missouri State Crippled Children's Service on November 16 on the subject "The Crippled Children's Service." Dr. Pullen and Dr. Frank B. Engley, Assistant Dean of the School of Medicine, attended the annual meeting of the Association of American Medical Colleges held in Atlantic City from October 19 to October 22. On October 22, Dr. Pullen and Dr. Engley attended a special dinner of the National Fund for Medical Education held at the Waldorf Astoria Hotel in New York City. On October 24, Dr. Pullen made a special address to the third and fourth year medical students of the Jefferson Medical College, Philadelphia, on "Training for General Practice."

Among those attending the meeting of the Missouri Academy of General Practice was Dr. M. D. Overholser, professor and chairman of the Department of Anatomy, who attended the session on October 31, and the program of papers presented on that day.

Dr. John H. Killough, associate professor and acting chairman of the Department of Medicine, attended the meeting of the American College of Chest Physicians held in New York City from November 7 to November 17.

On October 30 and 31, Dr. Thomas W. Burns, associate professor of medicine, attended the meeting of the Missouri Academy of General Practice held in Jefferson City and presented lectures on the following topics: "Oral Anti-Diabetic Agents" and "Latrogenic Thyroid Disease." Approximately 100 attended the meeting.

Dr. J. M. Martt, assistant professor of medicine, attended the annual meeting of the American Heart Association held in Chicago, October 25 to October 28. Approximately 3,000 attended this meeting. On November 12, Dr. Martt spoke to the Washington County Postgraduate and General Practitioners Association of Washington, Missouri, on "Congenital Heart Disease."

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended the American Public Health Association meeting held in Cleveland from November 11 to 15. Dr. Engley is a member of the Liaison Committee of the Laboratory Section and the Committee on Testing of Antiseptics and Disinfectants. Dr. Engley, Dr. Herbert S. Goldberg, associate professor of microbiology, and Dr. James T. Barrett, assistant professor of microbiology, attended a meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held in St. Louis on October 29. Dr. Barrett presented a paper entitled "Agglutination and Lysis of Erythrocytes by Lysozyme." Approximately 30 professional bacteriologists attended this meeting.

Dr. Michael H. Ivey, assistant professor of microbiology, attended a joint meeting of the Tropical Medicine and Hygiene and Society of Parasitologists on October 29 to November 2 held in Philadelphia.

Dr. Harold M. Haugen, instructor in obstetrics and gynecology, attended a program on "Psychosomatic Obstetrics and Gynecology" sponsored by the Academy of Psychosomatic Medicine and held in Chicago, from October 17 to 19. Approximately 600 attended this program.

On November 3 to 5, Dr. Garland H. Lang, instructor in obstetrics and gynecology, toured the Mead Johnson and Company plant in Evansville with approximately 20 others of the profession in attendance.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, was recently appointed chairman of the Research Committee of the American Society of Clinical Pathologists. Dr. Flynn also appeared before the State Medical and Scientific Committee of the American Cancer Society, Missouri Division, on October 19 to report how the Missouri Society of Pathologists are developing cytological programs. Dr. Flynn attended the Cancer Coordinators meeting on October 27 and the annual meeting of the American Cancer Society on October 28, 29, and 30 in New York City. On November 1, Dr. Flynn presented a scientific paper, "Necrotic Arachnoidism," at the annual meeting of the American Society of Tropical Medicine and Hygiene in Philadelphia. He also served as cochairman of the joint meeting of the Missouri State Medical Association Laboratory and Cancer Committee held on November 10 at Jefferson City.

On November 2, Dr. C. K. Leeper, assistant professor of pathology, spoke to the University Faculty Club on "Influenza Viruses—Asian and Otherwise." Dr. Leeper also attended the joint meeting of the Cancer Committee and Laboratory Medicine Committee of the Missouri State Medical Association held on November 10 in Jefferson City.

Dr. V. P. Perna, instructor in pathology, attended the fall meeting of the Missouri Society of Medical Technologists on October 26 and 27 in St. Joseph. On November 10 to 16, Dr. Perna visited the Technicon Corporation in Chauncy, New York, to be instructed in mechanics and operation and maintenance of the Technicon Autoanalyzer which the University has purchased.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics; Dr. W. R. Hepner, associate professor, and Dr. Fikri Hanna, assistant instructor, attended a meeting of the Central Society for Clinical Research held in Chicago on November 1 and 2. Approximately 600 attended this meeting. Dr. Jackson attended a meeting of the Training Grants Committee of the National Institute of Arthritis and Metabolic Diseases. This meeting was sponsored by the National Institutes of Health and was attended by seven members of the Committee. On October 23, Dr. Jackson attended a meeting of the Scientific Advisory Committee of the National Vitamin Foundation in Pittsburgh which is a special committee to review research grants. Approximately 12 attended the meeting. Dr. Jackson attended a symposium on "The Mode of Action of Lipotropic Factors in Nutrition" sponsored by the University of Pittsburgh Graduate School of Public Health and held at the University of Pittsburgh. The meeting was attended by approximately 250 people.

Dr. W. R. Hepner, associate professor of pediatrics, spoke before the annual banquet of the Pettis County Medical Society on the evening of October 22, on the topic "Respiratory Problems in the Newborn." Approximately 50 physicians and their wives attended the banquet.

New Appointments—School of Medicine

Dr. Sergio Chavez has been appointed assistant instructor and second year resident in surgery effective October 1, 1957. Dr. Chavez received his M.D. degree at the University of Mexico in 1954.

Dr. William J. Cassel, Jr., has been appointed clinical associate in obstetrics and gynecology, effective December 1, 1957. Dr. Cassel received his B.S. in Bacteriology in 1941 from the University of Illinois; M.D. in 1944 from Washington University; M.P.H. in 1957 from the University of Michigan School of Public Health.

Dr. William D. Gaunt has been appointed assistant professor of medicine effective December 1, 1957. Dr. Gaunt received his M.D. in 1948 and A.B. in 1955, both from Washington University and his M.S. in 1957 from the University of Minnesota Graduate School.

Dr. James Gordon has been appointed assistant instructor and first year resident in surgery effective July 1, 1958. Dr. Gordon received his M.D. in 1957 from the University of Missouri School of Medicine.

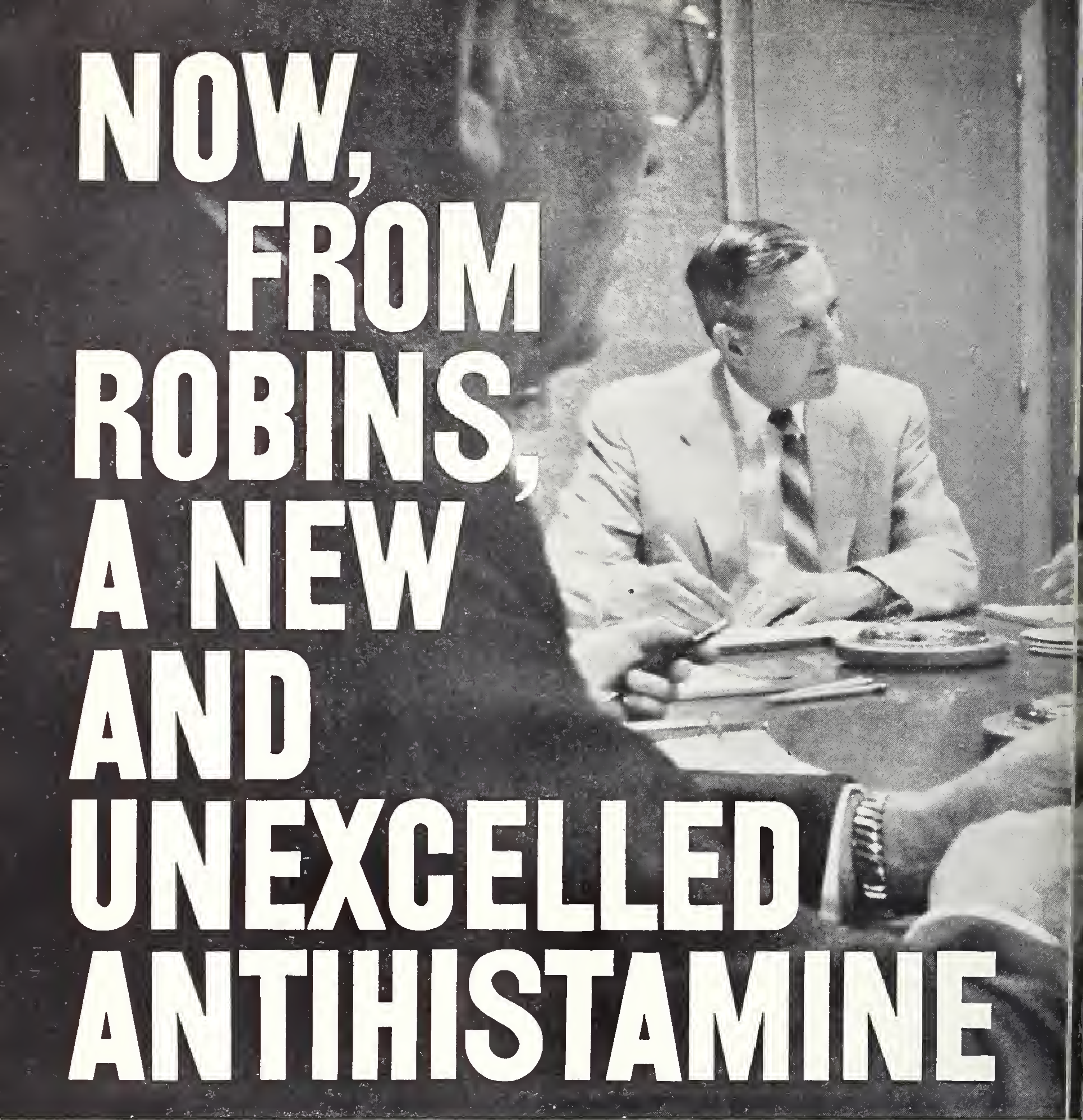
Dr. Waldo P. Hitchcock has been appointed assistant professor of anesthesiology effective January 1, 1958. Dr. Hitchcock received his A.B. in 1935 from Central Oklahoma State Teachers College; M.S. in 1938 from Oklahoma University; Ph.D. in 1942 from Tulane; and M.D. in 1949 from Alabama University. Dr. Hitchcock is coming to the University of Missouri from Hahnemann Medical College and Hospital where he has been since 1956.

Dr. Gerald J. Van Leeuwen has been appointed assistant instructor and first year resident in pediatrics effective October 31, 1957. Dr. Van Leeuwen received his M.D. from the University of Iowa in 1954.

Dr. Billy D. Viele has been appointed assistant instructor in obstetrics and gynecology and third year resident effective July 1, 1958. Dr. Viele received his M.D. from Harvard in 1954.

Dr. Earl J. Wipfler, Jr., has been appointed assistant instructor and first year resident in surgery effective July 1, 1958. Dr. Wipfler received his M.D. in 1955 from Washington University.

The following physicians in the State of Missouri have recently been added to the group of Preceptors in General Practice: Dr. Robert Best, Higginsville; Dr. George Gary, Marceline; Dr. Jordon A. Kelling, Waverly; Dr. Doyle C. McCraw, Bolivar, and Dr. Robert W. Smith, Marceline.



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Urticaria and angioneurotic edema	3	1	1	1		Dizzy (1)
Allergic dermatitis	2		1	1		Slight Drowsine 2)
Bronchial asthma	1		1			
Pruritus	1		1			
Total	37	15	13	7	2	Drowsiness (5) Dizzy (1)

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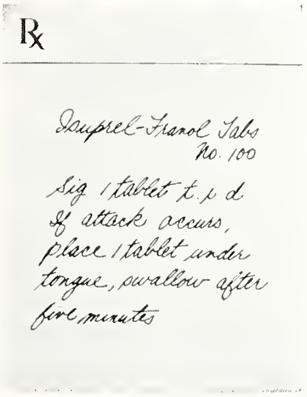

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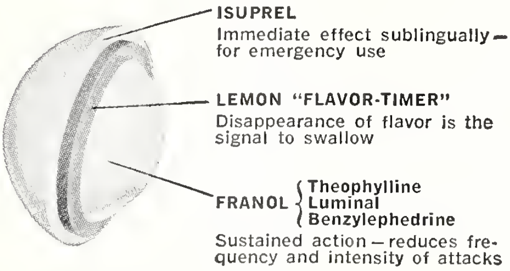
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Book Reviews

The Patient Speaks. Mother Story Verbatim in Psychoanalysis of Allergic Illness, by Harold A. Abramson, M.D., Associate Attending Physician and Chief of the Allergy Clinic, the Mount Sinai Hospital, New York City; Research Psychiatrist, Biological Laboratory, Cold Spring Harbor; Consultant, Huntington Hospital; Assistant Clinical Professor of Physiology, Columbia University; Consultant (Psychology), Department of the Army. Vantage Press, New York. 1956. Price $3.50.

This is the story of an allergic woman's psychoanalytic psychotherapy. The author has done a painstaking task of sifting through the verbatim transcribed interviews of the patient in order to record those interviews related to the patient's problems in her relationship to her mother and also the transference of her attitudes involving her mother to other people in her life. There is also the relationship of the patient's emotional conflict to her allergic manifestations clearly illustrated and the unobtrusive support and help the therapist gives to the patient in resolving her problems.

The author uses the case material and small excerpts of other cases at the end of the book to formulate the dynamics involved in certain types of problems in which he uses the term "cronus complex" to describe the engulfing of the child by the mother or father and the ramifications of this problem. Although this has been described in other psychoanalytic and psychiatric literature, Dr. Abramson has done an extremely valuable piece of work in illustrating this more fully and contributing some of his own formulations. The question is raised as to whether anything is to be gained by introducing another technical term into the psychiatric lexicon.

The author mentions in his introduction the question of criticism relative to recording interviews, and, I feel rightly defends this method as a valuable procedure for psychotherapy research; but he does not discuss the possible implications and effects this procedure may have on the patient and the therapist. There needs to be more investigation of this problem.

Dr. Frank Fremont-Smith presents an excellent discussion of the questions raised concering the concept of psychosomatic problems in the foreword. Dr. M. Murray Peshkin also presents a valuable preface in discussing questions of psychiatric treatment of allergic problems.

"The Patient Speaks" can be recommended to all physicians as a stimulating and thought provoking book to bring an awareness of a much broadened concept to the problems in treating patients. A. S. B.

Ciba Foundation Symposium on Histamines. Jointly With The Physiological Society and The British Pharmacological Society in honor of Sir Henry Dale, O.M., G.B.E., M.D., F.R.C.P., F.R.S. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B. Sc. With 133 Illustrations. Little, Brown and Company, Boston. 1956. Price $9.00.

This book, presented in symposium style by various research scientists, thoroughly presents all physio-pharmacologic aspects of the presence, fate, absorption, excretion and clinical correlations of histamine. It is of particular interest to students of research, allergists and internists.

The excellent review of old and new observations relative to histamine and gastric secretion by Charles F. Code of the Mayo Foundation and Clinic, is of special interest to all gastroenterologists and surgeons.

This symposium at the Wellcome Foundation covers the relation of histamine to the mast cells, the mechanism of histamine release under varied conditions and its relation to the various antihistamines in anaphylaxis. In addition to Part I relative to the occurrence of histamine in the body and Part II concerning the release of histamine, the third and most interesting part of this publication is concerned with the origin and significance of histamine in the body.

Part I and II of the Symposium at the Ciba Foundation discusses the origin, fate, location and mechanism of release of histamine in the body.

It is refreshing to review a book that reiterates so emphatically the "blind alleys" and "stumbling blocks" of tedious studies on a substance so important and yet so basic as histamine. As one reads of the vast and yet far from complete studies of these competent men, the trials and frustrations of clinical medicine can easily be rationalized.

Histamine can certainly be of value to all students of medicine who might wish to correlate medical practice with basic science. Future publications and advancements concerning histamine will be of great importance and interest. Q.C.

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A.S.A. Compound with Codeine tabs or caps	Lilly	Codeine phosphate	⅛, ¼, ½ & 1 gr.
Asphac-G tabs with codeine	Central	Codeine phosphate	¼ or ½ gr.
Bi-Co-Tussin	Bischoff	Dihydrocodeinone	1/12 gr.
Cidicol	Upjohn	Ethylmorphine hydrochloride	1/24 gr.
Codaspro No. 1	Van Pelt & Brown	Codeine	¼ gr.
Codaspro No. 2	Van Pelt & Brown	Codeine	½ gr.
Codempiral tabs No. 2	Burroughs-Wellcome	Codeine phosphate	¼ gr.
Codempiral tabs No. 3	Burroughs-Wellcome	Codeine phosphate	½ gr.
Copavin tabs or pulvules	Lilly	Codeine sulfate & Papaverine	¼ gr. aa
Coricidin with Codeine	Schering	Codeine	¼ or ½ gr.
Dieterpine	Schieffelin	Ethylmorphine hydrochloride	1/24 gr.
Edrisal with Codeine	Smith, Kline & French	Codeine phosphate	¼ & ½ gr.
Elixir Copavin compound	Lilly	Codeine sulfate & Papaverine	1/12 gr. aa
Elixoid cough mixture	Burroughs-Wellcome	Ethylmorphine hydrochloride	1/24 gr.
Elpagen tabs with Codeine	Patch	Codeine phosphate	¼ gr.
Empirin compounds with Codeine	Burroughs-Wellcome	Codeine phosphate	⅛, ¼, ½ & 1 gr.
Ethquinol tabs	Ulmer	Ethaverine	30 mg.
Hasacode tabs	Haskell	Codeine phosphate	¼ gr.
Hasacode tabs strong	Haskell	Codeine phosphate	½ gr.
Hycodan—Syrup	Endo	Dihydrocodeinone	1/12 gr.
Hycomine syrup	Endo	Dihydrocodeinone	1/12 gr.
Lumaspirin with Hyoscyamus and Codeine	Rorer	Codeine phosphate	¼ gr.
Nalline Hydrochloride Solution	Sharp & Dohme	N-Allyl-normorphine	any quantity
Nembudiene tabs	Abbott	Codeine phosphate	¼, ½ gr.
Neocylate Entabs with Codeine	Central	Codeine phosphate	¼ gr.
Nucodan tabs	Endo	Dihydrohydroxy Codeinone Hcl & Terephthalate	4.50 mg. 0.38 mg.
Pabirin caps with Codeine	Dorsey	Codeine phosphate	¼ gr.
PAC tabs or caps with Codeine	Upjohn	Codeine phosphate	¼ or ½ gr.
Papaverine	Lilly	Papaverine Hydrochloride	½, 1, 1½, or 3 gr.
Percodan tabs	Endo	Dihydrohydroxy Codeinone Hcl & Terephthalate	4.50 mg. 0.38 mg.
Phenaphen caps with Codeine	Robins	Codeine phosphate	¼ or ½ gr.
Phenodyne caps with Codeine	Bluline	Codeine phosphate	¼ or ½ gr.
Phensal tabs or caps with Codeine	Pitman-Moore	Codeine phosphate	¼ or ½ gr.
Pyrroxate with Codeine	Upjohn	Codeine	¼ gr.
Salimeph-C-with Codeine	Kremers	Codeine phosphate	⅛ gr.
Sodacitrol with Codeine	Flint Eaton	Codeine	1/5 gr.
Tensodin tabs	Bilhuber Knoll	Ethaverine	½ gr.
Thaverine tabs	Pitman-Moore	Ethaverine	½ gr.
Thephorine Expectorant	Roche	Papaverine Hcl & Codeine phos.	1/12 gr. aa
Tolserol with Codeine tabs	Squibb	Codeine sulphate	⅛ gr.
Trigesic tabs with Codeine	Squibb	Codeine phosphate	¼, ½ & 1 gr.

An oral prescription, telephoned or otherwise, for certain classes of narcotics as stipulated by the Federal Commissioner of Narcotics must be promptly reduced to a written record together with all the information as to dates, names, addresses and registry numbers as is required on a narcotic prescription and filed in the narcotic file. Such prescriptions are authorized in the State of Missouri under S.B. 115 as passed by the 1957 session of the Legislature.

The name and registry number of the authorized practitioner (physician, dentist, or veterinarian) is required, but not the signature. A refill may be made only on the oral authorization of the practitioner and it must be treated and filed as a new prescription. It is to be noted that these narcotic preparations are not exempt preparations and they are still classified as narcotics though they possess little or no addiction liability.

Oral prescriptions are authorized on the following narcotics prescribed either alone or in combination with other ingredients: apomorphine, N-allyl-normorphine, or an isoquinoline alkaloid of opium.

The following narcotics are authorized on oral prescription providing they are prescribed in combination with one or more active non-narcotic ingredients in therapeutic amounts: dihydrocodeinone where it does not exceed 1/6 gr. (10 mg.) per dosage unit or 1 1/3 gr. (86 mg.) per fluid ounce; dihydrohydroxycodeinone where it does not exceed 1/12 gr. (5 mg.) per dosage unit or 2/3 gr. (40 mg.) per fluid ounce; ethylmorphine where it does not exceed 1/6 gr. (10 mg.) per dosage unit or 1 1/3 (86 mg.) per fluid ounce; Codeine, where it does not exceed 1 grain (60 mg.) per dosage unit or more than 8 gr. (480 mg.) per fluid ounce.

The Bureau of Food and Drugs would like to warn pharmacists to be especially careful in filling oral prescriptions containing barbiturates in combination with narcotic drugs, as they are borderline preparations and must be carefully watched.

The compiled list of oral narcotic prescriptions will have omissions but is considered sufficiently comprehensive to be a practical aid to Missouri physicians in handling oral narcotic prescriptions as authorized by law. Whether or not a specific product is included in any listing, the Bureau of Food and Drugs warns, the pharmacist is responsible for making certain that oral prescriptions for the product is authorized which can be done by checking the narcotic content of the prescription, against the amounts authorized by law.

John H. McCutchen, Director
Bureau of Food and Drugs
Division of Health
Jefferson City

Curiosa et Trivia

William B. McCunniff, M.D.

Narcotic addition is 100 times more common in physicians than in the general population. It is estimated that about 1 per cent of American physicians either are now or will become addicted.

Federal government health and medical care currently costs the average American family $55 a year.

By way of comparison, these Federal health services cost ½ billion dollars more than the department of agriculture, and 1 billion more than the department of commerce!

Only one alcoholic beverage produces a disease which has been dignified by having the disease named after the liquor—Absinthe; excessive use produces the condition known as absinthism.

There are 60 types of Anopheles mosquitoes known to be malaria carriers. Five of these types are known to have acquired resistance to present insecticides.

Coincidence, or less gnashing, but on the average men keep their teeth about two years longer than women.

Capsule Clinics

I. A. Wein, M.D.

- Causes of pancreatitis may be: secondary to biliary tract disease, alcoholism, concomitant cholecystic disease, local ischemia, dietary deficiency, and fat embolism. MacKenzie, W. C.: Bulletin, Am. Col. Surg. **40** (January-February) 1955.
- Excessive estrogenic stimulation can produce the following: endometrial polyps, endometrial hyperplasia, metaplasia, carcinoma, adenomyosis and endometriosis. Meisner, W. A., et al.: Cancer **10** (May-June) 1957.
- Lymphedema after radical mastectomy seemed to follow or be associated with preoperative irradiation, marked axillary involvement, and obesity. Treves, N.: Cancer **10** (May-June) 1957.
- The alkylating agents, Myleran, TEM, and chlorambucil are the preferred forms of drug therapy for chronic leukemias. Bethell, F. F., and Arbor, A.: J. Chronic. Dis. **6** (October) 1957.

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Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

WASHINGTON

The House Ways and Means Committee may well be the focal point this session in Washington as far as physicians are concerned despite their intense interest in the overall security picture.

For in this committee rests the fate of the controversial Forand bill, the Jenkins-Keogh bill and compulsory social security for doctors.

The important Ways and Means Committee also is under new leadership. Rep. Wilbur Mills (D., Ark.) has assumed chairmanship following the death last December of Rep. Jere Cooper, Tennessee Democrat.

Mr. Mills, a lawyer and member of Congress for 18 years, is held in high regard in Congress. He is viewed as an authority on social security and taxation. The 48-year-old Arkansas Democrat often has been mentioned as the most likely candidate eventually to succeed Speaker Rayburn.

While the Forand bill to set up a FREE hospital-surgical care program for social security recipients may not be taken up for several months, early hearings were slated on Jenkins-Keogh. Physicians, as well as other self-employed professional groups, have a vital interest in the passage of the latter measure.

Supporters of the Jenkins-Keogh plan to encourage the self-employed to set aside money for retirement were expected to testify in the opening weeks of the 85th session. Groups to be heard included the American Thrift Assembly (formed by backers of the bill, including the A.M.A.) and the American Dental Association. As drawn the bill would permit the self-employed to defer U. S. income tax payments on a part of their earnings if put into restricted annuity funds. Taxes would be paid when retirement benefits are received.

While it is too early to predict the outcome of any of these three important bills, it is easy to see that Jenkins-Keogh could be offered as a lure to physicians to drop their opposition to compulsory social security coverage. This has been hinted at in the past and there have been rumblings from some physicians that social security coverage would not be too unwelcome.

However, Jenkins-Keogh and the Forand bill could well die a natural death this session. Heavy emphasis is being placed on more money for national security. Jenkins-Keogh would mean a loss in tax revenue and the Forand bill would mean a payroll tax increase for a non-security purpose.

Representative Forand, however, is optimistic. He said he continues to receive letters from physicians in support of his bill despite the strong disapproval of the A.M.A. He basically, of course, is counting heavily on the 13½ million AFL-CIO members who have endorsed his bill.

Optimism on the same point also is expressed by Rep. John Fogarty also a Rhode Island Democrat. He is chairman of the House subcommittee that handles appropriations for nearly all U. S. health programs.

Speaking at a meeting of the Washington chapter of the National Association of Social Workers, Fogarty gave two reasons why he thought Congress would enact some legislation on hospitalization for the aged.

1. Growing unemployment, which he feels may reach 6 million by next month.

2. Since 1958 is an election year the vote-getting lures of the Forand bill are obvious to all.

Forand also has backing in the Senate because Sen. William Proxmire (D., Wis.) is known to have a similar bill ready to throw in. His, unlike Forand's, would provide just free hospitalization for the aged, not surgical care.

Other subjects sure to be on the congressional docket this session include Medicare and the question of providing free medical and hospitalization insurance for Federal employees and their dependents.

Science-aid legislation, financial aid for medical research and continuation of the Hill-Burton hospital construction program are just a few of the other hot measures on tap. The congressmen even intend to continue their inquiry into tranquilizers.

It seems complaints have been received by the House Legal and Monetary Subcommittee that doctors have failed to get enough information on some of the drugs. Other complaints are that a half dozen products sold as tranquilizers without prescription actually are no more than sedatives.

The Defense Department spent 43 million dollars on Medicare during its first year of operation ending December. This program will be checked carefully by Congress because many of the states' contracts are up for renewal this year. Missouri's will be renegotiated in September.

Several changes also have been made in the scope and administration of the program. Letters explaining these are being sent you from the Missouri State Medical Association.

One involves a new "Uniformed Services Identification and Privilege Card" (DD Form 1173) that must be used by military dependents to establish eligibility for care. It must be produced except under emergency conditions or where the prospective patient is under 10 years old.

Spurred by the Sputniks, the Department of Health, Education and Welfare is planning a grant program of major magnitude to encourage science training. It would be set up to procure more and

(Continued on page 176)

New...from Pfizer Research

84

compounds tested

1

compound unexcelled

Progress has been made in antibiotic therapy through the use of absorption-enhancing agents, resulting in higher, more effective antibiotic blood levels.

For the past two years, in a continuing search for more effective agents for enhancing oral antibiotic blood levels, our Research Laboratories screened eighty-four adjuvants, including sorbitol, citric acid, sodium hexametaphosphate, and other organic acids and chelating agents as well as phosphate complex and other analogs. After months of intensive comparative testing, glucosamine proved to be the absorption-enhancing agent of choice. Here's why:

1 Crossover tests show that average blood levels achieved with glucosamine were markedly higher than those of other enhancing agents screened. In some cases this effect was more than double.

2 Of great importance to the practicing physician is the consistency of the blood level enhancement achieved with glucosamine. Extensive tests show that the enhancing effect with glucosamine occurs in a greater percentage of cases than with any other agent screened.

3 Glucosamine is a nontoxic physiologic metabolite occurring naturally and widely in human secretions, tissues and organs. It is nonirritating to the stomach, does not increase gastric secretion, is sodium free and releases only four calories of energy per gram. Also, there is evidence that glucosamine may favorably influence the bacterial flora of the intestinal tract.

For these reasons glucosamine provides you with an important new adjuvant for better enhancement of antibiotic blood levels. Tetracycline, potentiated physiologically with glucosamine, is now available to you as COSA-TETRACYN.

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Division of Health of Missouri

H. M. Hardwicke, M.D., *Acting Director*

Polio Vs. Public Health

The World Health Organization's definition of "Health" as a "State of complete physical, mental and social well-being" is a goal sought by all physicians whether they have cast their lot with public health or private practice. However, their separate responsibilities are often misunderstood by the uninformed.

It is not the desire of the Missouri Division of Health to trespass upon the private practice of medicine. In fact, of recent date, the Association of State and Territorial Health Officers was asked by the U.S.P.H.S. if we wished to enter an agreement to handle "Asian Flu" vaccine in a fashion similar to the "polio" vaccine program; and our unanimous answer was "no!"

We are in agreement that since it is the responsibilty of the practicing physician to "heal," it should also be his responsibility to further the concept of prevention by immunization. Only he can decide if contraindications to immunizations exist in a particular case. It is and should be the responsibility of the Division of Health to promote an understanding of the need for immunization on the part of the consumers of medical care.

"Then why all this noise at this late date about polio?"

It is simply this. Last January the American Medical Association urged its physician members to work toward the elimination of polio as a major disease problem. "If everyone under 50 could be inoculated against polio," they said, "doctors could then control the disease—as diphtheria and whooping cough are now controlled—through routine immunization of infants and children."

When Dr. David B. Allman, president of the A.M.A., announced, "the doctors' campaign is making headway, but not fast enough," the Missouri Division of Health decided to cooperate by organizing a hard-hitting information program in every county in the state to supplement the work of the doctors and have urged everyone to get behind the final push by spreading the polio protection word throughout the state.

We are happy to report that the program has gradually gained momentum through December and January and our various communications media have achieved splendid results.

How long is this "final push" to last? Will this be a recurring program? No! As far as we can ascertain, this will not be a recurring program. Although the U.S.P.H.S. has not gone on record in this regard, we public health officers have asked that the program not be repeated.

We have been assured of a sufficient supply of vaccine until June 30, 1958. This, however, is another reason for a strong program, for since we do have a generous supply of vaccine on hand and should it not be used, such a situation, if multiplied by similar trends in other states, could influence manufacturers to cut their output and perhaps cause a shortage. You will remember that this has happened before.

What proof do we have that the Salk vaccine has been successful?

Of the 34 million people who have had the full course of three injections, only 97 cases of paralytic polio have been reported to the U.S.P.H.S. Paralytic poliomyelitis has been reduced by 80 per cent during the last two years. There is no doubt that polio vaccine was an important factor in this achievement.

Is there any change in the accepted schedule of immunization against polio?

There has been a slight revision by Dr. Salk based on an increasing knowledge of antibody titers. It now seems entirely permissible to adopt the following schedule: Second shot, two to four weeks after the first injection; and the third shot, not less than three months nor more than seven months following the second injection. (This broad time limit allows crowding a full course of three injections before August.)

Announcement is being made this week advocating a fourth or booster shot recommended six months or more after the third injection.

It is the express desire of the Division of Health to tender our sincere appreciation to Missouri physicians for their unselfish cooperation in this intensive effort to stamp out polio in Missouri.

CALLS MEETING TO DISCUSS AGED

Plans for the creation of an advisory council to the Missouri Division of Health to study the old age problem in Missouri and help develop a program for its solution were made at a meeting of representatives of a number of state-wide organizations and state agencies January 12 in Jefferson City.

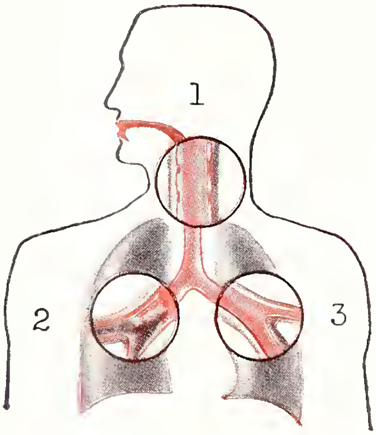
The meeting was called by H. M. Hardwicke, M.D., acting director of the state health division. Stanley S. Peterson, M.D., of Springfield represented the MSMA.

"It would seem that one of our first and foremost requirements in relation to our older aged population is to develop a mechanism by which we can gather all pertinent data on old age, by which we can evaluate all working programs, by which we can judge that program and that technic which is best suited to the citizens of this state," Dr. Hardwicke said.

He suggested that the advisory group should consider recommending the creation of a state commission on old age.

"Nearly everyone who has worked for any length of time and with any success in an attempt to solve the problem of our older population agrees that the only enduring solutions are to be found at the community level," Dr. Hardwicke added.

breaks up cough*



*Drawing shows how 3-pronged attack of Pyribenzamine Expectorant with Ephedrine breaks up cough by: (1) reducing histamine-induced congestion and irritation throughout the respiratory tract; (2) liquefying thick and tenacious mucus; (3) relaxing bronchioles. Pyribenzamine Expectorant with Codeine and Ephedrine also available (exempt narcotic). Pyribenzamine® citrate (tripelennamine citrate CIBA). C I B A

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Dr. J. L. Eaton, superintendent of State Hospital No. 4, Farmington, has inaugurated a tree-planting movement which he proposes to make an annual custom at the institution.

A medal for "notable service to mankind" has been presented to Dr. Wm. J. Mayo by the National Institute on Social Science at its meeting in New York, January 18. Similar medals were also presented to Herbert C. Hoover, food administrator, and Henry P. Davidson, chairman, American Red Cross.

Dr. R. Emmet Kane, St. Louis, has been selected by the National Council of the Knights of Columbus as one of the speakers to deliver addresses to the soldiers on Washington's birthday. The government has requested the Knights of Columbus to furnish speakers for the thirty-five camps to deliver addresses on the general topic "The Life and Times of George Washington." Dr. Kane will speak to the soldiers at Camp McClellan, Anniston, Alabama.

The president of our Association, Capt. Robert E. Schlueter, St. Louis, has been ordered to Fort Oglethorpe, Ga., for active service. In view of the fact that the three vice presidents are holdng commissions in the service and that two of them are now on active duty, Dr. Schlueter has appointed Dr. W. A. Clark, Jefferson City, to act as president, and Dr. Clark has accepted this responsibility.

Dr. Philip A. Shaffer, dean of Washington University Medical School, has been elected by the Surgeon-General to take charge of a branch of the food division which has recently been established as a part of the sanitary corps of the Army, and Major J. R. Murlin, assistant professor of physiology, Cornell University, has been appointed director of the division. Under their direction, the food supply of the troops will be investigated, not only as to its nutritional value, but as to its sanitary condition and its palatability.

The St. Louis Medical Society passed the following resolutions at its meeting of December 15, 1917: Dr. McMahon, acting as spokesman for the junior interns, stated their position and the steps they had taken to obtain a remuneration of $25.00 a month. Dr. Shutt and Director of Public Welfare John C. Schmoll explained their attitude in the matter. Dr. Hinchey moved that the medical society approve and support the bill presented by the interns. Seconded and passed.

TWENTY-FIVE YEARS AGO

Dr. H. S. Conrad, St. Joseph, was elected chairman of the staff of the Missouri Methodist Hospital at a meeting January 24. Other officers elected were Dr. A. B. McGlothlan, vice chairman, and Dr. Earl Senor, secretary.

The annual Hodgen Lecture was presented January 10 at the St. Louis Medical Society Building by Dr. Frank C. Mann, Rochester, Minnesota.

Dr. M. Pinson Neal, professor of pathology, University of Missouri School of Medicine, Columbia, has been appointed Missouri member of the Council of the Southern Medical Association to fill the unexpired term of Dr. Walter Baumgarten, St. Louis, who resigned. The appointment was announced by the president, Dr. Irvin Abell, Louisville, Kentucky.

The Mississippi Valley Dermatological Society met in Kansas City, January 14. Dr. Wm. W. Duke, Kansas City, was the guest of the society and addressed the morning session.

The Medical Association of the Missouri Pacific Railroad held its fourth annual meeting in Kansas City, January 27 and 28. The principal address was delivered by the president of the railroad, Mr. L. W. Baldwin. Dr. J. E. Castle, Kansas City, was elected president for 1933.

Dr. C. Edgar Virden, Kansas City, was elected president of the staff of St. Joseph's Hospital, Kansas City, at a meeting of the hospital staff January 9. Other officers elected were: Chief of staff, Dr. T. J. Beattie; vice president, Dr. Harry L. Jones; treasurer, Dr. C. S. Capell, and secretary, Dr. Frank B. Wallace.

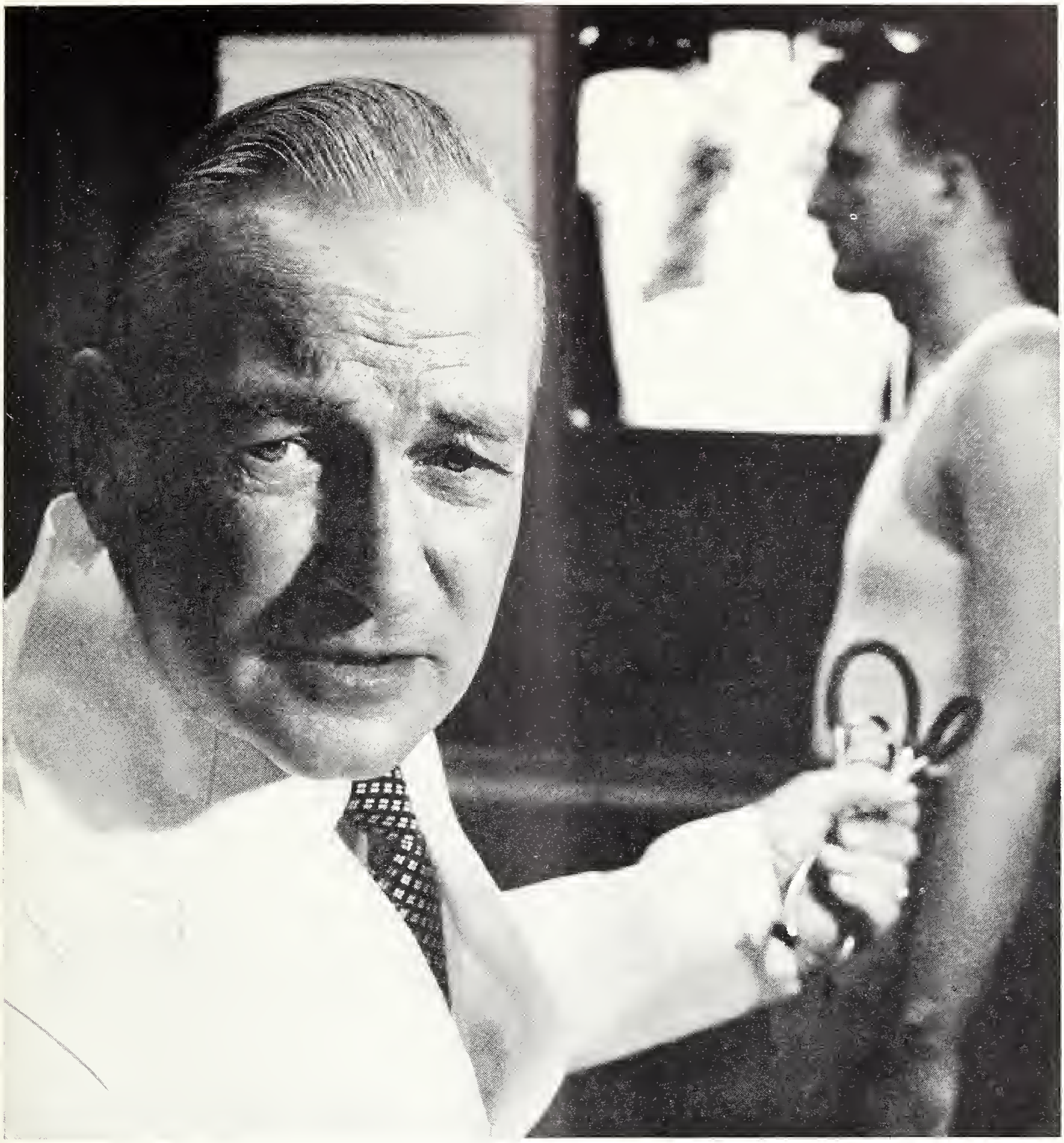
The Cape Girardeau County Medical Society met in regular session at the Chamber of Commerce Rooms, Cape Girardeau, at 8:00 o'clock December 12. The following officers were elected: President, Dr. M. H. Shelby, Cape Girardeau; vice president, Dr. Sylvester Doggett, Cape Girardeau; treasurer, Dr. B. W. Hays, Jackson; secretary, Dr. C. A. W. Zimmermann, Cape Girardeau.

TEN YEARS AGO

As a result of several cases of lead poisoning reported to the Industrial Hygiene Service an investigation was made of a bronze foundry in Missouri. Air analyses made in the plant showed high lead concentration throughout the plant and particularly in the foundry room. Lead is a usual constituent of brass and bronze and its proportion may vary from 5 to 20 per cent by weight.

Paul R. Hawley, M.D., who organized and developed the medical hospital program of the Veterans Administration and headed the medical work

(Continued on page 164)



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Woman's Auxiliary

Mrs. Armand D. (*Ruth Anne*) Fries, *President*

In a previous article I told of the pleasure I derived from my personal visits with the various counties. Every visit has been a pleasure and inspiration to me, and I return home with an enriched feeling of pride in my husband's chosen profession and in the splendid group of doctor's wives throughout the State, who, by nature of their community roles, have been so tremendously helpful in creating good public relations for the medical profession.

The Auxiliary members were paid a fine tribute by Dr. W. A. Sewell, President, M.S.M.A., in his Christmas greeting letter, which appeared in the December issue of the *Quarterly Bulletin,* from which I quote: "Your wonderful assistance and confidence in us has been very gratifying. I only wish that all the wives of doctors who are members of the M.S.M.A., belonged to the Woman's Auxiliary. Your accomplishments in the local communities have been outstanding. The Auxiliary members have worked on the different projects with enthusiasm and have accomplished far more than we could ever anticipate. You make us very proud that you are our wives. After all, it takes a woman's touch to make a home and raise a family, and I sincerely think it also takes the Woman's Auxiliary to make a good Medical Association."

Certainly, I can attest to these statements. Just a few recent accomplishments follow: At a Public Relations Day Luncheon, 300 invitations were sent to members of different women's clubs, by the St. Louis (city) Auxiliary. Principal speaker of the day was the Director of Special Services, Public Relations Department of the A.M.A. Her subject: "Women—Their Contribution to the Health of Our Nation." Other speakers from various agencies spoke on "St. Louis Women, Their Volunteer Contributions to Medicine and Health."

I was honored at a lovely luncheon given by the Cole County Auxiliary, in latter November. Following luncheon, the annual "Health Careers Day" sponsored by Cole County Medical Auxiliary at the Simonsen Junior High School drew a record breaking attendance of more than 500 freshmen students and their counsellors from the Junior and Senior High Schools in Jefferson City. Sisters from St. Mary's Hospital represented the departments of Pharmacology, X-Ray, Dietetics and Laboratory. Two films on "Health Careers" were shown and a talk on the objectives of the Health Careers Council was given by its president, Mrs. A. P. Stephan. Throughout the program emphasis was placed on the importance of taking science and other pertinent subjects in high schols as a basis for further study in pursuing "Health Careers."

Other projects which have received tremendous response are "American Medical Education Foundation" and "Future Nurses' Clubs." Mrs. J. Walton, president-elect, and Mrs. M. Weitman, State A.M.E.F. chairman, and St. Louis County Auxiliary are to be congratulated for the success of a lovely card party, for the benefit of A.M.E.F. Mrs. P. V. Siegel, Smithton, is A.M.E.F. chairman of Pettis County Auxiliary. My last official visit was with the Pettis County Auxiliary in December and Mrs. Siegel's report was outstanding. Through use of A.M.E.F. "In appreciation" cards used in place of gifts, $665 was raised and with the contribution raised by the Auxiliary a total of $712 was raised, with not all contributions in. Surely this fine attitude proves our National slogan, "Health is a joint endeavor."

Now in its fifth year is a third "Future Nurses' Club," of Clay County. Several of its former members are now Registered Nurses or students, some in training with the help of scholarships awarded by Clay County Auxiliary. Mrs. Robert H. Stewart, of Pettis County, was most interested and inspired with the report of Clay County's Future Nurses' Clubs which she heard at one of our Board Meetings. There are thirty other clubs in Missouri and she was determined that her County would have another. Mrs. Stewart is not a nurse, but with enthusiastic interest and determination, she sought the help of the school nurse and with girls from 3 Sedalia high schools a Future Nurses' Club under the sponsorship of Pettis County was organized and officers elected. They have set up a point system whereby they earn their club pin through attendance at meetings, participation in special projects and, particularly, participation in civic projects. One of their first rules is that all members must maintain a set average in their school work to maintain their membership—and accurate account is kept of how much work is done by each girl so credit may be given for their contributions. Already one of the members, Miss Sharon Vedder, hopes to enter Barnes Hospital for training in February.

I have cited but a few instances of the accomplishments of our Auxiliary members. Space does not permit my listing more but all are indeed worthy of the fine tribute from Dr. Sewell.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 February, 1958 Number 2

Respiratory Cytopathic Infections

The Occurrence of Adenovirus Isolation in Civilian Respiratory Infections

JOHN W. BERRY, M.D.; JOAN F. PICCIONE, AND FRANCIS J. CAREY, *St. Louis*

ACUTE VIRAL infections of the respiratory tract have been a clinical enigma for years. This has been due to the unavailability of laboratory methods accessible to the clinician for recognizing and classifying these agents. The established technics of animal passage and egg inoculation have been unfruitful in isolating infectious agents in a high enough percentage of cases to be of value in routine testing. The discovery that certain viruses could be grown in tissue culture has permitted technics adaptable for virus isolation.[1] The ability of a virus to cause morphologic changes in cellular tissue is called cytopathogenesis. The changes are easily observed microscopically and indicate the presence of a virus. A variety of cellular tissues will show similar morphologic changes and can be used for virus isolation. For routine testing, the cell lines most commonly used are HeLa cells, derived from human cervical carcinoma, and monkey kidney cells (MKC). Both of these cell lines are available commercially.

The tissue culture methods for virus isolation have been particularly fruitful in defining the acute febrile respiratory illnesses observed in military populations.[2] The adenoviruses are believed to cause about 30 per cent of such infections.[3] Because available chemotherapy is not effective against these viruses, immunotherapy has been developed and recommended.[4, 5] To what groups such vaccine therapy should be directed has not been defined, inasmuch as the occurrence of adenovirus infections in civilian population groups is not known. If these infections were known to be as common in civilian groups with respiratory infections as in military groups, similar immuno measures might be practical for schools and industries. The importance of minor respiratory infections as a major cause of sickness absenteeism has been pointed out by others. The Common Cold Foundation has estimated that five billion dollars are lost annually in wages, productivity and medical expenses due to these infections. Because of the unknown role of the adenoviruses in civilian respiratory infections, the present study was begun in June 1956.

METHODS

Respiratory secretions from selected employees of the Southwestern Bell Telephone Company were collected for virus isolation. The employees were all located in St. Louis, Missouri, at the Administration Building, 1010 Pine Street. The participating employees all had symptoms of a mild respiratory infection of the common cold variety. All volunteered for the virus studies and were ambulatory. The total number of employees serving as the reservoir of the virus material was 2,300 people, of whom approximately 766 are males and 1,532 females. The actual number of employees who submitted throat washings for virus testing was 178. This represents the entire number of throat washings submitted from October 1956 to November 1957 for analysis. It is reemphasized that all of the participating employees were symptomatic.

At the onset of their symptoms of a respiratory infection, they were seen in the Company's Medical Unit where their temperature, pulse and respirations were recorded by the attending nurse. If fever (over 99.6 F. orally) was present, the employee was examined by one of the Medical Unit physicians. In such cases emergency treatment was rendered and the employee referred to his family doctor for more definitive care. When seen in the Medical Unit, each employee with respiratory

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symptoms was asked by the attending nurse to submit a throat washing for virus isolation. The throat washings were collected by gargling 5 milliliters of sterile saline, dispensed in a suitable sterile container. The patient was encouraged to regargle to assure viral concentration. The throat washings were kept in a commercial-type deep freeze in the Medical Unit until transported, at weekly intervals, to the tissue culture laboratory. When received in the laboratory, the specimens were stored in the frozen state at minus 4 C. until tested. The tests were done at two week intervals to coincide with shipments of HeLa cells from the supplier, The Microbiologicals Associated, Inc., Washington, D. C.

The cells were contained as a monolayer epithelial sheath in standard screw cap culture tubes. They were fed every other day until used with 0.5 milliliter of growth media. This consists of 40 per cent horse serum and 60 per cent Hank's solution with 100 units of aqueous penicillin and 100 micrograms of streptomycin per milliliter. Prior to virus testing the growth media was poured from the culture tubes and the frozen respiratory specimens allowed to thaw. One tenth milliliter of the throat washings was added to the HeLa cell tubes containing 0.5 milliliter of Scherer's maintenance solution with penicillin and streptomycin. The inoculated tubes were incubated at 33 C. in a stationary tilt rack. Daily microscopic observations were made with one hundred magnification for evidences of cellular changes. The cytopathic changes were recorded daily and graded qualitatively, 1 to 4+. The grading scale was established from previous microscopic observations against a known adenovirus, ARD-3.[*] One plus represents cellular granularity, particularly of the cytoplasm; 2+ further granularity with fragmentation and rounding up of the cytoplasm; 3+ cellular necrosis with 50 to 75 per cent dislodgement of the cells from the tube surface; and 4+ further dissolutionment of the epithelial sheath of cells with more than 75 per cent being dislodged from the tube surface. The latter changes are evident grossly as well as microscopically.

Microscopic observations were carried out on each tissue culture tube for seven days. Before being discarded, the solution from each tube was harvested and frozen for future testing. Second passages were done on the first 50 negative specimens, but when further yields were not realized this was abandoned. Controlled microscopic observations were made on un-inoculated HeLa cells with each test group. Tissue cells kept on Scherer's maintenance solution frequently will show, on the fourth or fifth days, slight granularity and fragmentation. These "nonspecific" changes rarely are more than 1+ and never more than a 2+ reaction. To assure error only on the conservative side, only those specimens with a 3 to 4+ cytopathic effect were considered as being positive for virus content. Routine bacteriologic testing was done with thioglycollate broth on the tubes showing a 3 to 4+ cytopathic effect. If bacteria were present, the tests were repeated or discarded from the positive group.

RESULTS

Table 1 tabulates the number of throat washings submitted for analysis. The data are listed according to the months when the specimens were collected. The second column represents the number of throat washings tested for virus content by the HeLa cell method. The third column gives the number that showed a 3 to 4+ cytopathic reaction on HeLa cells. The fourth column gives the percentile yield of those showing virus content to the number of throat washings tested. It is noted that beginning in November 1956, a cytopathic agent was demonstrated. This agent was present in the employee group through February 1957. From March to July 1957 no virus was isolated by the technics employed. In August 1957 a cytopathic agent was again detected, which persisted through October 1957. The highest incidence of recovery was in February and September 1957; however, the small number tested in September invalidates this observation. The collected specimens are recorded through October 1957.

TABLE 1

THROAT WASHINGS ANALYZED

Month	*Number Tested*	*Number Positive*	*Per Cent Positive*
October 1956	8	0	0
November 1956	10	1	10
December 1956	33	5	15
January 1957	31	5	19
February 1957	13	3	23
March 1957	16	0	0
April 1957	9	0	0
May 1957	8	0	0
June 1957	7	0	0
July 1957	6	0	0
August 1957	12	1	8
September 1957	5	2	40
October 1957	20	0	0
Total	178	17	10

Table 2 is a summary of those employees on whom viral activity was demonstrated with the HeLa cell method. Eleven of the 17 employees were less than 25 years of age. Sixteen virus isolations were in women. Only one of the 17 experienced a febrile illness. The symptoms were entirely nonspecific and conformed to the usual "colds" with "scratchy throats, hoarseness, dry cough and mild aching" being symptoms most often mentioned. These are graded 1 to 4+, depending upon the number of symptoms present: e.g., a person with a sore throat and cough is graded 2+; if in addition the patient had the symptom of malaise, the grading would be 3+. Approximately 50 per cent of this group had at least three of the predominating symptoms. Despite the symptoms, only four actual-

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[*] Through the courtesy of Dr. Carl Harford, Department of Medicine, Washington University, St. Louis, Missouri.

TABLE 2

SUMMARY OF VIRAL ACTIVITY

Case	*Age*	*Sex*	*Fever*	*Symptoms*	*Sickness Cases Days Lost*
1. R.F.	20	F	0	++	Yes (1)
2 D.P.	21	F	0	++	No
3. J.S.	19	F	0	++	No
4. G.H.	24	F	0	+	No
5. S.A.	17	F	0	+++	No
6. C.S.	19	F	0	++	No
7. A.B.	60	F	0	++++	Yes (2)
8. B.C.	17	F	0	+++	Yes (½)
9. D.C.	19	F	0	+++	Yes (1)
10. F.O.	27	F	0	++++	No
11. G.C.	33	F	0	++	No
12. L.R.	31	M	0	++++	No
13. J.S.	17	F	0	++	No
14. E.H.	53	F	0	++	No
15. M.S.	19	F	0	+	No
16. D.H.	25	F	0	++	No
17. A.H.	28	F	+	+++	No

ly were associated with a lost time illness (Cases 1, 7, 8 and 9). The greatest amount of time lost was two days (Case 7), an accounting department supervisor who was also the oldest employee on whom a positive isolation was made.

Table 3 summarizes the occupational history of those individuals on whom a virus was isolated. The first three columns identify the case, date of isolation and particular job assignment. All the employees were from the occupational groups with the exception of Cases 7 and 12, both of whom are management employees. For the most part, the employees had little contacts with the outside public public during their working hours. An estimate of such contacts was made and graded 1 to 4+, depending upon the amount of time spent with the outside public while on the job. "O" indicates no direct or only casual contact; 2+ a total aggregate of less than six hours weekly with the outside public; and 4+ representing daily contact of at least two hours. Twelve employees had no direct outside contacts during their working hours while five had such exposures.

TABLE 3

OCCUPATIONAL HISTORY

Case	*Isolation Date*	*Department and Job Assign.*		*Public Contact*	*Room Location*
1.	11/26/56	Traffic	Operator (CH)	0	723*
2.	12/6/56	Accounting	Clerk	0	808*
3.	12/13/56	Engineering	Clerk	0	1243
4.	12/17/56	Accounting	Clerk	0	808*
5.	12/28/56	Commercial	Clerk	++	114
6.	12/28/56	Engineering	Clerk	0	1218
7.	1/2/57	Accounting	Supervisor	0	608
8.	1/2/57	Traffic	Operator (CH)	0	723*
9.	1/2/57	Traffic	Operator (CIB)	0	709*
10.	1/2/57	Executive	Secretary	++	2403
11.	1/17/57	Plant	Clerk	++	204
12.	2/1/57	Commercial	Supervisor	++++	120
13.	2/4/57	Treasury	Clerk	++	2213
14.	2/26/57	Traffic	Operator (CIB)	0	709*
15.	8/13/57	Accounting	Clerk	0	513
16.	9/3/57	Traffic	Operator	0	1131
17.	9/12/57	Accounting	Clerk	0	627

* Offices from which more than one isolation was made.

The specific location of each employee within the building is listed in the last column of table 3. The offices from which more than one isolation was made are indicated. It would appear that the "intra-departmental" contagiousness was of a low order. Case 1, a Chestnut Exchange operator, had a positive isolation on November 26, 1956. Thirty-seven days later another isolation was made from the same office, Case 8. A 55 day interval was noted between Cases 9 and 14, both Central Information Bureau operators. The shortest time interval between cases in the same departmental offices was 11 days, Cases 2 and 4. It is apparent that the respiratory infections associated with these virus isolations were extremely mild. Only one person experienced fever at the onset and a total aggregate of only four days were lost with the infections. It would appear that the contagiousness of this virus was of a low magnitude with sporadic cases occurring throughout the employee group in a diffuse manner.

VIRUS IDENTIFICATION

Attempts at identification of the viruses isolated have been made. At the time of this report, final identification of the virus is not possible. This has been due partly to the inability to obtain serum sampling on this group of patients. Because of the lack of sera for neutralizing and complement fixing antibody testing, other procedures have been done in an attempt to identify the cytopathic agent isolated. These studies will be recorded in another publication.

From the cytopathogenesis observed, we are of the opinion that none of the agents were adenoviruses. The latter viruses are known to cause marked cytopathic degeneration in HeLa cells within 48 hours after inoculation.[6] None of our positive isolations caused cellular changes in this period of time. Additional testing was done with monkey kidney cells. With this cell line the cytopathogenesis observed did not conform to the description for the adenoviruses. Neutralization tests were done with Type 4 rabbit antiserum without protection, further evidence that this sero type was not responsible for the cytopathic changes. Unfortunately, Types 3 and 7 antiserum were not available. The three sero types of adenoviruses are the most commonly observed with acute respiratory infections. Primary egg inoculations* for influenza virus was done on five of the 17 isolates. By these technics, in none tested was an influenza virus demonstrated. Passage of the original respiratory washings was made in one day old sucklings mice to exclude Coxsacki virus. Virus was not demonstrated in any of the passages, indicating this group of viruses was not responsible for the cytopathic changes. Passage in adult mice was done with negative results, excluding the psittacosis and herpes simplex viruses.

SUMMARY

The present studies embrace more than one

Evaluation of a New Analgesic Combination

Report of Use in Postoperative Gynecologic Patients and in the Postpartum Period

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A COMBINATION OF ethoheptazine citrate and acetylsalicylic acid has been evaluated for the relief of pain in the postpartum period and for pain following gynecologic operations. The purpose of this study was twofold: (1) to determine the analgesic effectiveness and (2) to determine the incidence of side effects.

PHARMACOLOGY

Ethoheptazine is a racemic mixture of the d and l isomers of 1-methyl-4-carbethoxy-4-phenyl hexamethylenimine. The results of previous pharmacologic and clinical studies indicate that ethoheptazine is a moderately potent analgesic.[1, 2] Other investigators have reported that this compound (1) causes little or no sedation,[3] (2) does not possess addiction liability,[4] and (3) produces few side effects.[2, 3] Cass and associates found that a combination of ethoheptazine and acetylsalicylic acid in appropriate amounts is equivalent in analgesic potency to codeine 30 mg. and acetylsalicylic acid gr. 10.[5]

These reports prompted our interest in carrying out a clinical study with the aforementioned objectives in mind.

PLAN OF STUDY

Codeine or codeine in combination with aspirin is frequently used for the relief of "afterbirth pains" and episiotomy pain. Analgesics of this order of potency are also prescribed for subacute postoperative pain in gynecologic patients, especially after the need of the more potent, injectable narcotic drugs has passed. Therefore, for the purpose of this study, it was decided that the com-

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Cytopathic Infections—Continued

year's experience with attempts at primary virus isolation in an adult ambulatory group of patients from an industrial environment. All of the subjects involved in the studies had respiratory symptoms of varying degree. All of the subjects volunteered specimens while at work at the onset of their symptoms when virus was most apt to be present. Of the 178 specimens submitted from different employees, 17 showed cytopathogenesis on HeLa cells with primary passage. The character of the cellular changes did not follow the characteristic pattern seen with adenovirus isolations. On the basis of the cytopathic reaction on HeLa cells it would appear that the adenoviruses could be excluded.

The clinical picture in the 17 patients from whom a virus was isolated was characterized by the usual symptoms associated with the common cold. Only four of the 17 patients had illnesses severe enough to lose time from work. In view of the mild symptoms, one can question whether the isolated agents had anything to do with "infection." Immunologic evidence for infection was not obtained in the absence of paired sera in this study. The possibility that the agents so isolated represent "normal viral flora" deserves consideration. If this be true, the failure to observe any cytopathic agents in the summer months is of interest. From the results of this study, it seems fairly clear that adenovirus isolation in civilian groups with respiratory symptoms do not follow the military experiences. Certainly in this group of employees with mild respiratory symptoms, such viruses were rarely, if ever, encountered. The fact that so few of the positive group had a febrile illness does not invalidate the observations. It is known that the clinical picture with fever need not correlate with the presence of the virus. Furthermore, in the remaining 161 specimens tested with negative cytopathic effects, 31 patients had oral temperatures in excess of 99.6 F. It is hoped that with increasing experience with the newer technics of virus isolation, more productive work can be accomplished in unraveling the enigma of respiratory viral diseases.

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* Through the courtesy of Dr. G. O. Broun, Department of Medicine, St. Louis University.

bination of ethoheptazine and acetylsalicylic acid would be substituted for codeine or the combination of codeine and aspirin in all instances of these types of pain when the use of an analgesic of this potency was indicated.

The study included unselected, consecutive patients, 53 of whom were seen on the obstetric and 39 on the gynecologic clinic service of the University of Missouri Medical Center. The age of the patients varied from 15 to 72 years. The routine dosage in all patients was 2 tablets every four hours as needed for pain. Each tablet* contained 75 mg. of ethoheptazine citrate and 325 mg. of acetylsalicylic acid.

For postpartum pain, 2 tablets were prescribed after delivery, to be administered only when something for the relief of pain was requested. In the gynecologic patients subjected to major procedures, the first dose was administered, for the most part, on the third postoperative day; and, after minor procedures, at any time the patient experienced pain.

The degree of pain relief and the occurrence of side effects were determined by an interview with the patient at an appropriate interval after the administration of each dose. Questions were asked by a single disinterested observer in a standard manner and leading questions were avoided. Analgesic effectiveness was scored according to the degree of relief experienced, as rated by the patient, as follows: (1) complete relief, (2) 50 per cent or more but not complete, (3) 50 per cent or less but some relief, (4) none.

The patients were also specifically questioned and observed for the occurrence of nausea, vomiting, epigastric distress, dizziness and drowsiness. If the patient voluntarily reported side effects, such were recorded.

RESULTS

The types of pain experienced and the degree of relief reported by the 53 obstetric patients are presented in table 1. These patients received from one to eight doses over periods of from one to six days.

TABLE 1

OBSTETRIC PATIENTS

		Degree of Relief			
Type of Pain	*No. Patients*	COMPLETE %	50% OR MORE %	50% OR LESS %	NONE %
"Afterbirth pains"	38	84	13	3	0
Hemorrhoids	2	66	33	0	0
Breast engorgement	2	100	0	0	0
Postspinal cephalalgia	6	0	100	0	0
Dysuria due to cystitis	1	50	50	0	0
Episiotomy	4	100	0	0	0

The types of pain experienced and the degree of relief reported by the 39 gynecologic patients are presented in table 2. The total number of doses administered to each patient in this group varied between one and 12, over periods of one to seven days.

TABLE 2

GYNECOLOGIC PATIENTS

		Degree of Relief			
Type of Pain	*No. Patients*	COMPLETE %	50% OR MORE %	50% OR LESS %	NONE %
Vaginal surgery (hysterectomy with A-P colporrhaphy, perineorrhaphy, etc.)	13	92	0	8	0
Abdominal hysterectomy	11	50	43	0	7
Dilatation and curettage	2	100	0	0	0
Cystoscopy	1	100	0	0	0
Abortions, spontaneous	3	100	0	0	0
Radiation proctitis	4	0	100	0	0
Arthritis	1	0	100	0	0
Psychic factors	4	0	25	0	75

Three hundred doses of the combination of ethoheptazine and acetylsalicylic acid were given during the course of the study. The incidence of side effects was as follows: nausea after 0.3 per cent, drowsiness after 5 per cent, and epigastric distress after 4 per cent of the doses.

SUMMARY

A new, non-addicting analgesic compound, a combination of ethoheptazine citrate and acetylsalicylic acid, was used clinically in hospitalized obstetric and gynecologic patients to determine effectiveness and common side effect liability.

CONCLUSIONS

1. The combination of ethoheptazine citrate and acetylsalicylic acid is an effective analgesic for the usual types of pain occurring during the postpartum period.

2. This analgesic combination also satisfactorily relieves mild or moderate postoperative pain occurring as the result of major and minor surgical procedures.

3. Side effects were infrequent and mild and did not necessitate discontinuing use.

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* Zactirin® tablets available from Wyeth Laboratories.

Case Report

Malignant Tumors of the Testis in Infancy and Childhood

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MALIGNANT TUMORS of the testis in infancy and childhood, though quite uncommon, are of great clinical importance because of the frequency of intrascrotal masses in this age group and the importance of prompt diagnosis when the physician is confronted with this problem. The purpose of this paper is to review partially the available literature on this subject and to add a case report of our own.

Malignancy is one of the leading causes of death in childhood. Testicular tumors rank seventh in incidence; more frequent are neoplasms of the central nervous system, lymphoid tissue, bone, kidney, liver and skin, in that order of frequency.

Julien,[1] in a collective review of 137 cases of malignancy to 1925, found 20 which were present from birth and 27 which appeared during the first year of life. Rusche[2] gathered twelve cases occurring over a twenty-five year period, four of which appeared at birth. These included two teratomas, one dermoid and one embryonal cell carcinoma. Gross[3] lists twelve cases of malignant tumor of the testis, all of which involved children more than one year of age.

DIFFERENTIAL DIAGNOSIS

Among the conditions which must be considered when an intrascrotal mass is detected are: neoplasm, hernia, hydrocele, hematocele and infarction of the testis. Testicular tumor must be considered first when the presenting signs are an enlarging, painless, non-transilluminating mass. Tumors may, of course, coexist with hernia and hydrocele. Aspiration by needle of any intrascrotal mass is mentioned only to be condemned.

CLASSIFICATION OF TUMORS

Testicular neoplasms may be classified as follows: (1) seminoma; (2) embryonal cell carcinoma: (a) chorionepithelioma, (b) adenocarcinoma; (3) teratoma; (4) teratocarcinoma; (5) interstitial cell carcinoma, and (6) miscellaneous (rare or unclassifiable).

The incidence of these various cell types in infancy and childhood differs from that in the adult. Although Friedman and Moore[4] in a study of 922 cases in all age groups found a 35 per cent incidence of seminoma, this tumor is exceedingly rare in the pediatric group. The preponderance of malignant growths in this group is represented by the teratoma, the teratocarcinoma and the embryonal cell carcinoma. A small number is represented by the chorionepithelioma, the most highly invasive tumor. Choriomatous characteristics may be evident in the metastases of embryonal cell carcinomas or teratocarcinomas even when they are not evident in the primary lesion. About one half of the teratoid tumors have metastases with teratocarcinomatous structures and one half metastasize as pure embryonal carcinomas.[4] The immediate prognosis for embryonal carcinomas, teratacarcinomas and mature teratomas is bad, while that of seminomas is good. The route of spread is by way of the spermatic cord at an early stage to the abdominal and lumbar lymph nodes, along the lymphatics of the spermatic vessels to the celiac nodes. There is often metastasis via the hematogenous route. Common organs involved in distant spread are the liver, lungs and brain.

TREATMENT

Despite the ominous characteristics of these tumors, encouraging reports have been published by some observers following orchidectomy with or without postoperative x-radiation.[2, 5, 6]

Most authors agree that the treatment of choice is an early orchidectomy with ligation and section of the spermatic cord at the level of the deep inguinal ring. Postoperative x-radiation appears to add little to the plan of treatment since only the rare seminoma among these tumors is appreciably radio-sensitive and the possibilities of delayed growth, bone marrow arrest, and sterilization of the other testis, are great when therapeutic levels of radiation are administered. Delayed radical retroperitoneal lymph node dissection as advocated by Lewis[7, 8] undoubtedly carries with it an increased morbidity and mortality rate, especially in the younger age group, and no conclusive evidence indicates that it has increased survival rates.

CASE REPORT

D. C., a 7 month old white male was admitted to DePaul Hospital on August 5, 1957. He had previously been in perfect health. His parents stated that three weeks prior to admission they had first noticed a mass in the right side of his scrotum, which seemed to have increased slightly in size. The child had been

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examined by two other doctors, one of whom had attempted aspiration of the mass with a syringe, only to recover bloody fluid. Examination at the time of admission revealed an otherwise healthy baby with a non-tender, non-transilluminable mass involving the right testis. It was approximately the size of a large marble.

Laboratory data—Hemogram: red blood cells, 4.18 million; Hemoglobin, 10.7 gm.; white blood cells, 15,500, with 66 lymphocytes, 32 segmented neutrophils and 2 eosinophils. Urinalysis was not remarkable. A roentgenogram of the chest was interpreted as normal. No test for urinary chorionic gonadotrophins was done.

A mild upper respiratory infection delayed surgery, but on August 13, 1957, a right orchidectomy with removal of the spermatic cord at the level of the deep inguinal ring was done. The pathologic report follows: "The testis measures 4 by 3 by 2.5 cm. The covering tunica vaginalis is smooth and glistening. On section the normal architecture of the testis is obliterated by a tumor which bulges from the cut surface. The tumor is yellowish-white and has a somewhat lobulated appearance with a few pinkish, slightly depressed areas in the center. The surface has a smooth, glistening, somewhat fish-flesh appearance. A portion of the spermatic cord is attached, measuring 6 by 1.2 by 0.5 cm. It is not remarkable.

"Section of the testis shows a tumor which consists of anaplastic glandular formations lined by flat to cuboidal cells. In some areas the cells are distributed in small clumps and clusters. Some compressed testicular tissue is seen at the periphery. Section of the cord is not remarkable. Diagnosis: Testis, adenocarcinoma, probably arising from the rete testis."

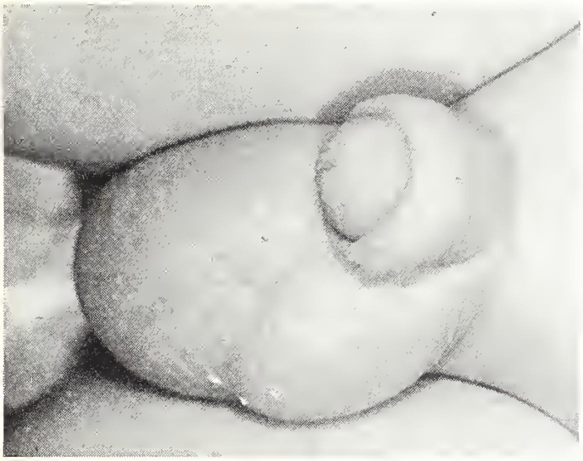

Fig. 1. Right testicular enlargement.

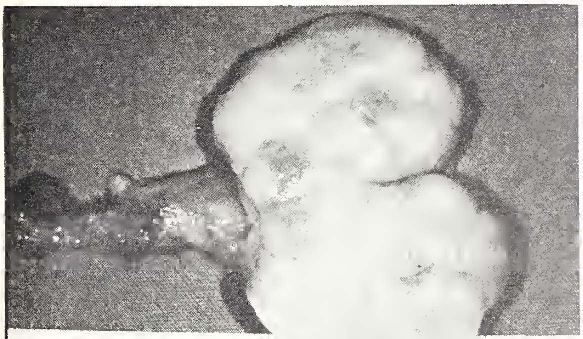

Fig. 2. Gross appearance of tumor and cord. The testis is replaced by a somewhat nodular tumor which contains small areas of necrosis.

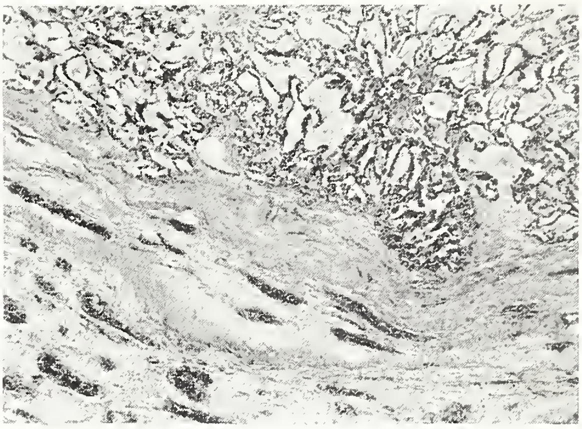

Fig. 3. Low-power view of tumor which is seen to compress peripheral testicular tubules.

It was decided in consultation with a radiologist not to give the patient postoperative x-radiation. The patient was discharged on August 26, 1957, and was doing well at first follow-up visit a few weeks later. It is, of course, too early to speculate on the eventual result obtained.

SUMMARY

Neoplasms of the testis in infants and children are uncommon; only 137 cases were reported until 1925, with probably no more than 50 since then. Most of the tumors occur before the third year. Teratomas, teratocarcinomas and embryonal cell carcinomas predominate. They metastasize by way of lymphatics and blood stream. Despite the high degree of malignancy of these tumors a considerable number of clinical cures have been obtained by early orchidectomy with or without postoperative x-radiation.

CONCLUSIONS

1. Malignant testicular tumor in the pediatric age group, though relatively rare, must be considered in the diagnosis of every intrascrotal mass.
2. Aspiration by needle of any intrascrotal mass is to be condemned. Such a maneuver not only may seed malignant cells throughout the wound in case of tumor, but may perforate bowel or cause considerable bleeding in cases of hernia and other conditions.
3. Most testicular tumors in childhood are teratomas, teratocarcinomas or embryonal cell carcinomas. They carry a poor immediate prognosis.
4. The treatment of choice for this condition is early orchidectomy with high ligation and removal of the spermatic cord.
5. A case report is presented.

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4952 Maryland Ave.

Grand Rounds Medical Conference

Polycythemia Vera With Lung Disease

Saint Louis University School of Medicine

Presentation of Case

This is the case of a 32 year old unmarried white male who was admitted on August 5, 1957, and discharged twelve days later. The chief complaint was of an increase of chronic cough, mild shortness of breath and mild weakness for a period of six weeks. He had also noticed hemoptysis six weeks before admission, associated with severe exertion. In reviewing this patient's case it would be best to make note of his previous hospitalizations. In 1946 he was admitted to a hospital in Phoenix, Arizona, because of a generalized pruritic rash and a stasis ulcer of the left ankle; he was noted to be polycythemic at that time; multiple phlebotomies were performed and he developed a near-normal hemogram. He was admitted to another hospital in this city, approximately five years later, with the chief complaint of hemoptysis and shortness of breath. At that time he was noted to have an enlarged spleen and liver and marked polycythemia. Phlebotomies were performed and the hemogram was again returned to normal. He was noted to have varicosities in the lower extremities which had been present since age 13 years. After phlebotomies were performed he had bilateral vein ligation and stripping. He also had poor teeth at that time and a complete dental extraction was performed. He was not observed after this until 1954, when in August he had hemoptysis of approximately 100 cc. He was seen in the receiving room of City Hospital where a chest roentgenogram revealed a cyst in the right lung with a possible air-fluid level; he was thought to have an infected lung cyst. Sputum studies showed no acid fast bacilli; the air-fluid level disappeared in twelve days. He was then referred to this hospital for evaluation.

During his 1954 admission, he was found to be polycythemic and a chest roentgenogram revealed a cystic area in the right lung. Angiograms performed to exclude pulmonary arteriovenous fistula were normal. He had an arterial O_2 saturation of 95 per cent on two occasions. Pulmonary function studies at that time were normal. He was phlebotomized and then discharged.

In 1956 he was again admitted to this hospital with a history of hemoptysis for three days three weeks prior to admission. He was found to have harsh breath sounds in both lung fields and hepatosplenomegaly. He was polycythemic, had positive histoplasmin, coccidiodin and tuberculin skin tests, and had a normal arterial oxygen saturation of 100 per cent; repeated sputum examinations were negative for acid fast bacilli. A blood volume study showed that he had an increased plasma, red cell and total blood volume. Phlebotomies were performed and he was given radioactive phosphorus therapy.

His past history is interesting in that he had an injury to the head at the age of 5 years. His development might be listed as slow in that he spent three years in the first grade and quit school after the seventh grade. It was also noted that as a child he did not participate in athletics with the other children and was somewhat slow. He had gonorrhea at the age of 18 years.

This patient was born in Arkansas and moved to Arizona at the age of 18 years; he has lived in St. Louis since 1950. He worked for a number of years as a farm hand; he is now engaged in the plastic industry and is in contact with a number of chemicals in his present job. His family history is significant in that his mother died of tuberculosis in 1937; his brother has been hospitalized for seven and a half years in a tuberculosis sanitorium.

At the time of the present admission he was noted to be mentally slow. His skin was flushed with a particular blue-red hue; his lips, tongue, ears and nail beds appeared slightly cyanotic. He also had a seborrheic dermatitis of the scalp and the eyelids. His head had a groove which ran transversely across the occipital region. Bilateral perforated tympanic membranes were noted. There was

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These conferences are conducted each Friday morning in Miller Hall, Firmin Desloge Hospital, and are participated in by members of the Medical Staff and the Basic Science Departments.

This Conference was conducted on October 11, 1957. Recordings of these conferences are edited and abstracted by William A. Knight, Jr., M.D., and Joseph B. Vacca, M.D.

Malignant Tumors—Continued

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slight dorsal kyphosis, increase in antero-posterior chest size, and questionable amphoric breath sounds in the right upper lung. His heart was of normal size; a grade II over VI systolic, soft blowing murmur was heard along the left sternal margin. The liver edge was just barely palpable and his spleen was palpated by at least one examiner. There were varicosities of both lower extremities.

Urinalysis was normal and the VDRL was negative. Serum uric acid was 3.3 mg. per cent; bone marrow examination showed a generalized hyperplasia without any other abnormalities; his arterial oxygen saturation was 95 per cent after exercise, 98 per cent resting; pulmonary function studies were essentially normal.

On this admission his hematocrit was 56 per cent. After removal of 500 cc. blood he was found to have a total blood volume of 9540 cc., red cell volume of 6000 cc., and plasma volume of 3000 cc. After removal of 1500 cc. more blood, the total blood volume was 8000 cc., red cell volume was 4000 cc., and plasma volume was 3,900 cc. After phlebotomy he was given 5 mc. of radio-active phosphorus orally. Two weeks after his discharge, his hematocrit taken in the clinic was 37 per cent with a red cell count of 4.8 million and hemoglobin of 12.5 gm. per cent.

Dr. Mueller: The first chest roentgenogram was taken in September of 1954. It shows the cyst-like area previously noted in the upper lobe of the right lung and a general increase in pulmonary vascular shadows. In 1956 a chest roentgenogram showed the cyst-like area to be elongated to approximately twice the previous size. The left lung field showed no change. The heart has increased to about 12 per cent larger than average normal. In August, 1957 a chest roentgenogram again shows the cyst-like area in the upper right lung; a cystic area has now appeared in the upper lobe of the left lung also. Bronchograms were made but were not satisfactory in regards to filling, but no abnormalities were suggestive of bronchiectasis; the opaque material did not enter the area of the cystic lesion.

A flat film of the abdomen showed the liver to be somewhat enlarged, extending down below the costal margin, and also that the spleen was somewhat enlarged. The kidneys were not well visualized because of the fecal material in the bowel. Intravenous pyelograms showed the left renal pelvis to be slightly distorted due to rotation of the kidney; the right kidney does not appear rotated. The next films were pre-sacral air injection studies which outline the left kidney well, which does not appear grossly abnormal in contour. The air does not pass around the right kidney well, but it does not appear abnormal. Now as to the cause of rotation of the left kidney, the cause of this phenomenon cannot be demonstrated but one wonders about the possibility of a renal cyst causing this. The spleen is not enlarged enough to have been the cause.

Dr. William A. Knight, Jr.: This patient had polycythemia; what conditions should be considered in the differential diagnosis of polycythemia? Doctor Broun, would you discuss this aspect?

Dr. G. O. Broun: There can be an elevated hematocrit and red cell count in shock or dehydration without there being a true polycythemia; it is good to include a blood volume study in cases of polycythemia in order to demonstrate that there is an increased total circulating cell volume. A patient should not be classified as a polycythemia of any sort unless one is able to demonstrate that. If there is actually an elevated total circulating cell volume one is in the field of polycythemia.

The most interesting development in this field in recent years is the discovery of a substance called erythropoietin which seems to exert a humoral control over red cell production, at least to a certain extent. This substance was discovered when it was noted that if the plasma of animals that had been rendered anemic by bleeding was injected into normal animals, an increase in the number of erythrocytes would occur. It can also be shown that this substance is present in plasma when anoxia is produced by interference with the oxygen supply. This substance has also been demonstrated in the serum of patients with polycythemia without the stimulus of anoxia. Thus, these facts serve as differentiating features to enable the subdivision of causes of polycythemia into two major groups: physiologic polycythemia and polycythemia vera. Among the causes of physiologic polycythemia, all are associated in one way or another with decreased oxygen saturation of the arterial blood. This can be brought about by residence at high altitude, by admixture of arterial and venous blood, or by severe lung disease. In at least some of these diseases of physiologic polycythemia, erythropoietin has been demonstrated in increased quantities in peripheral blood; this is believed to be the stimulus for over-production of red cells. There are at least two good papers on this in the last number of the *Journal of Laboratory and Clinical Medicine*. It is shown in one of these papers that erythropoietin is present in normal blood and present in increased quantities under the physiologic stimuli just mentioned. Now, in what is called polycythemia vera there also seems to be some increase of erythropoietin in the circulating blood; however, in this disease one does not know what the stimulus is. Apparently there is an abnormal production of this substance not caused by the anoxic stimulus.

Polycythemia vera is generally considered to be a milder form of myelo-proliferative disease in which the excessive marrow production is, in particular, of the erythrocytic series; if the leukocytes are principally involved, then of course the disease is termed leukemia. An interesting feature is that some cases of polycythemia vera develop a picture of granulocytic leukemia; there seems to be some relationship between these two conditions.

This case does not seem to have the anoxic stimulus since arterial blood saturation is normal. That means that one would have to say that this patient has the abnormal production of blood, not due to that stimulus. In polycythemia vera there is usually splenomegaly; that is at least demonstrable by x-ray and at least one person is said to have felt the spleen. Not typical in this case is the normal leukocyte count. Usually in polycythemia vera the leukocyte count is elevated at least to leukocytosis levels and in some cases a leukemic level. This case does not show the usual shift toward younger forms in the differential count.

Certain abnormalities of the kidneys are occasionally associated with polycythemia. Some investigators believe that the kidneys are the site of production of erythropoietin. It is interesting to speculate about the role of the renal abnormality in this case with polycythemia.

QUESTION: Can it be told from the hematocrit and red cell count whether primary or secondary polycythemia is present?

DR. BROUN: As far as the red count, hemoglobin and hematocrit are concerned, one cannot tell one type of polycythemia from the other; if one has a sufficiently severe anoxia as occurs in congenital heart disease, I have seen the red count up to ten million. In general, I say to look more at the leukocyte count rather than the actual degree of the polycythemia; yet, here is a case of polycythemia vera with a normal leukocyte count.

QUESTION: Has anyone been able to crystallize erythropoietin; is it quantitatively different in the primary and secondary types?

DR. BROUN: I do not think that it has been purified to the point of crystallization; it has been concentrated, but not actually purified. In regard to the amount in blood, apparently it varies with each case and I do not know that it exactly parallels the degree of polycythemia although there may be some rough parallelism. Probably it can be present in similar amounts in either type of polycythemia.

DR. KNIGHT: Dr. Sweet, will you discuss the pulmonary function studies? Would you also discuss how polycythemia secondary to lung disease has been excluded? If this is polycythemia vera, do you believe the pulmonary abnormalities developed secondary to the hematological disorder?

DR. HERBERT SWEET: This patient has polycythemia and a lung lesion. Usually one associates the polycythemia that occurs with lung disease with arterial unsaturation and I know of no instance in which polycythemia has been felt to be caused by a lung lesion in the absence of arterial oxygen unsaturation.

There are three general situations in which polycythemia occurs. First, one can have polycythemia vera with a normal arterial oxygen saturation which is what this man has shown since 1954. Can one have polycythemia vera with arterial oxygen unsaturation? Comroe has described a case in which there was no pulmonary pathology but which demonstrated arterial oxygen unsaturation of a major degree. This individual had a blood arterial oxygen saturation on some occasions as low as 52 per cent. Now in Comroe's case exhaustive studies were done which finally demonstrated that the individual was hypoventilating. His ventilation was about 1.8 L/min. instead of the normal of three to four or even five L/min. Blood carbon dioxide was greatly elevated. This hypoventilation was due to respiratory center lesions which had been produced by the polycythemia vera and thrombosis. They did rather convincing studies of the respiratory center showing that it was damaged so that it was not sensitive to certain stimuli. It is theoretically possible and probable that one can have polycythemia vera with oxygen unsaturation. Thirdly, one can have lung lesions in which arterial oxygen saturation is remarkably reduced, which leads to polycythemia.

Now, can polycythemia vera produce lung lesions? I think that most people will agree that multiple thrombi can occur in the pulmonary vessels associated with polycythemia vera. I do not believe that one can definitely say that a cystic disease of the lung may be caused by polycythemia vera. We can have secondary polycythemia associated with widespread cystic diseases of the lung.

Let us now consider the various causes of arterial oxygen unsaturation. This may be caused by disorders of ventilation as in the case described with lesions in the respiratory center. One can also have effective hypoventilation due to uneven distribution. This is what occurs in emphysema. Diffusion defects, as are seen in Hamman-Rich disease and lymphangitic carcinomatosis of the lung, may also lead to unsaturation. This may also occur with pulmonary arterio-venous shunts or with abnormalities of hemoglobin.

Now, about how much arterial oxygen unsaturation is necessary to elevate the red cell count and how high can it be elevated by arterial oxygen unsaturation? If one goes to the problem of altitude and polycythemia one finds data of this sort. If one goes to approximately 12,000 feet above sea level, there is not too marked a change in the average red count or hemoglobin. When one gets up to 14,000, 17,000 and 23,000 feet above sea level, one can get a rather marked increase in the red count and hemoglobin. Comroe in his paper states that secondary polycythemia seldom has above 17 gms. of hemoglobin or a hematocrit above 55 per cent. I do not believe that this is substantiated either by these values at greater altitudes nor by the cases that have been seen in the Pulmonary Laboratory.

Now what is the alveolar pO_2 at these altitudes? Well, an alveolar pO_2 of 70 mm. Hg. on the hemoglobin dissociation curve turns up with an arterial oxygen saturation in the neighborhood of 90 to 92 per cent; thus, one probably has to get into the range of 90 per cent saturation before one gets much stimulus of hemopoiesis by reduced oxygen tension. Now, clinically, the stimulus seems to have to be a little bit greater than this. Presented are three cases in which emphysema was present, all autopsy cases. There is no doubt about the emphysema. The first case had residual air values of 69 per cent and an arterial oxygen saturation of 87 per cent, but this individual never had polycythemia. Next, two individuals with approximately the same order of magnitudes of pulmonary function as in the first cases had arterial oxygen saturation of below 85 per cent and polycythemia. It probably requires somewhere around 85 per cent arterial oxygen saturation to get secondary polycythemia in most cases.

Following are the studies on the case for this morning. He has a vital capacity of 3.8 liters, which is 91 per cent of normal. He has a good total lung volume, he has a residual air value which is within normal limits, he has a good maximum breathing capacity, an alveolar nitrogen after seven minutes of oxygen breathing which is normal. Arterial oxygen saturation studies have been done on this individual since 1954, on approximately five or six occasions. It has always been between 95 and 100 per cent and with exercise he does not drop to below the 95 per cent level. It is significant also that his arterial CO_2 has been normal. And also of some significance, his minute volume of respiration is normal usually or slightly increased.

I wonder how this man has gone so long without having his right upper lobe removed. It would be of some interest to observe whether his polycythemia would change if he did have his right upper lobe removed.

DR. KNIGHT: Dr. Carter, would you present the clinical picture that occurs in polycythemia vera?

DR. JOHN CARTER: The symptoms and signs of polycythemia vera can be many and varied; complaints can vary from nothing to cerebrovascular disease and myocardial infarction. More commonly the chief complaints are of a vague nature consisting of headache, ringing in the ears, shortness of breath. Apparently the patient seldom complains of the color of his skin which is obvious to an examing physician in most cases. Occasionally, the patient will complain of a feeling of fullness or heaviness in the abdomen, probably due to the enlarged spleen. In reviewing the symptoms of these patients, one finds that in reference to the skin they may have a variety of skin disturbances ranging from acne and hives to leukemic-like nodules of the skin. An interesting and unusual complaint is that of pruritus after taking a bath; this is usually after a warm bath, but can also occur after a cool bath. They also complain of sensitivity to cold which is attributed to poor peripheral circulation. Another complaint is frequent bleeding of the gums. In regard to the respiratory system it has already been mentioned that they complain of dyspnea on exertion and chronic or recurring lung infections. Referable to the cardiovascular system, cardiac symptoms are said not to be common, although the sluggish circulation of blood contributes to vascular disease which may already be present. Complaints referable to the vascular system are the more common symptoms, consisting of such things as thrombophlebitis, varicose veins, intermittent claudication and the like. They also have, in higher percentage than normal, certain peripheral vascular diseases such as acroparesthesia, Raynaud's syndrome, thromboangiitis obliterans and erythromelalgia.

In reference to the gastrointestinal system, they may have fullness in the abdomen, thirst, gas pains, belching and constipation. The heavy feeling in the abdomen has already been referred to. In reference to the neuromuscular system, the most common complaint is headache. They also complain of weakness, vertigo, fainting spells, insomnia, parasthesias and the like. Visual disturbances are common complaints, consisting of dimness, permanent blindness, scotomata and diplopia. Also not too uncommon are various types of psychic changes, especially mental deterioration or retardation of mental development; they also have a higher incidence of convulsive disorders.

On physical examination of the patient with typical polycythemia vera, the most obvious thing is the peculiar purplish-red, cyanotic color, most notable in the peripheral portion of the body, the tip of the nose, the ear lobes, the hand and the nail beds. The coloring is similar to that of a chronic alcoholic. On examination of the skin there may be ecchymoses, rashes of various types and acne. Examination of the eyes frequently shows congested conjunctivae and sclerae; examination of the fundi may show a deep red retina and dark purple veins. Examination of the mucous membranes will show a peculiar raspberry red color. Examination of the lungs may show evidence of chronic infection to which they are quite susceptible. Examination of the heart is not specific but the occurrence of hypertension in polycythemia is not uncommon. When hypertension does occur in polycythemia, this can be referred to as Gaisbock's syndrome, but the correlation of polycythemia and hypertension is not evident; it may be pure coincidence. In one series of cases there was a systolic blood pressure of more than 140 mm. Hg. in eleven out of twenty cases and in another larger series the systolic blood pressure was elevated in 33 per cent of the cases. In one third of these the blood pressure returned to normal when the red cell count returned to normal.

Examination of the abdomen in 40 to 50 per cent of cases shows a large liver. Apparently there is a slight increase in incidence of cirrhosis in polycythemia vera and the occurrence of cirrhosis in polycythemia vera is called Mosse's syndrome. The incidence of splenomegaly in polycythemia varies between 75 and 90 per cent. The size of the spleen varies from visibility only on x-ray to enlargement extending to the pelvic brim. Examination of the vessels may show thickened arteries, thrombophlebitis, varicosities, evidence of arterial occlusion, or Raynaud's phenomenon.

DR. KNIGHT: Dr. Janney, it has been noted that the cardiovascular system is rather extensively involved in polycythemia; would you discuss this phase of the problem? What is the incidence of cerebrovascular accidents and myocardial infarctions?

DR. JAMES G. JANNEY: It is difficult to get an accurate idea of how frequently these complications occur; while almost every author who writes on polycythemia vera mentions the frequent occurrence of thrombotic episodes, and certainly almost any part of the body may be included in this, it is really hard to get any accurate estimation of the frequency in any individual area.

In regard to the effect of the polycythemia per se on the flow of blood, it does seem that the circulation in these people is influenced by the marked filling of all parts of the vascular system with excessive amounts of blood so that all capillary beds everywhere appear to be full and opened; as a result of this, blood flow apparently is slower than in the ordinary individual though the cardiac output in the cases in which it has been measured may be close to or actually normal. I do feel that in all probability cardiac failure does not occur purely on the basis of polycythemia, unless there are such complicating features as thrombosis in the lung fields or the coronary vessels. I think that it certainly would be a rare thing to see failure on the basis of pure polycythemia. Certainly cardiac failure is a prominent part of many cases of secondary polycythemia; however, pulmonary disease or cardiac arterio-venous mixing play an important part in the cardiac failure involved.

I think it might be worth while to state that certainly cases have been reported in which there is cor pulmonale in individuals with primary polycythemia. When one gets repeated emboli or thrombi in the lung fields there would be significant pulmonary hypertension. I see no reason why, in such a particular situation, the pulmonary disease could not impose another stimulus to the formation of additional red cells.

I think it might be worth while to mention at this point the fact that cor pulmonale is not a specific diagnosis in itself, but rather must be designated in relation to the particular problem that it is secondary to, e.g., emphysema, multiple embolic phenomena, thrombosis, mitral stenosis or ventricular failure. I feel that this is a concept that has taken all too long to become routine thinking.

DR. KNIGHT: Dr. Zuckner, a serum uric acid value of 3.3 mg. per cent is recorded for this patient. Would you explain the significance of this determination in polycythemia vera?

DR. JOHN ZUCKNER: I think all are aware that there is an increased incidence of gout in polycythemia vera. Different reports indicate that approximately 2 to 10 per cent of these patients do have gout. When I say "gout" I am referring to the actual clinical picture of gout exactly the same as one sees in the usual case of gout. There are also patients who have hyperuricemia that do not necessarily have the gout and should not be classified as gouty patients.

These cases are grouped into a category of secondary gout in distinction to primary gout which is the kind usually thought of. The difference between primary and secondary gout is dependent upon the type of uric acid metabolism occurring in the patient. There are three main pathways of uric acid formation: (1) the indirect method of uric acid formation; (2) direct method, and (3) the breakdown of nucleoproteins to uric acid. Patients with primary gout have abnormalities in the first two pathways. There is increased uric acid in patients with polycythemia and leukemias because there is increased nucleic acid in the body due to an increase in the number of cells and breakdown of the cells.

Secondary gout is practically the same as primary gout. There are one or two different features in that primary gout occurs mainly in men in the ratio of nine to one while in secondary gout the ratio is not so prominent. In primary gout there is a strong family history of the disease. Another differentiation between primary and secondary gout is the time required for uric acid excretion in the urine when given to the patients in either of these categories. In patients with primary gout it will be excreted in approximately two to four days, while in patients with secondary gout the maximum excretion may run to fourteen days.

In the acute stage the treatment of gout is exactly the same whether it is primary or secondary type. Patients respond to colchicine in either case.

When treating any of the hematologic disorders that may be associated with secondary gout, caution must be exercised as the acute destruction of cells will cause a tremendous increase in uric acid excretion and may result in renal tubular obstruction. Administration of sodium bicarbonate at these times may prevent this by alkalinizing the urine.

DR. KNIGHT: Dr. Thoma, would you outline the therapy of polycythemia vera? Are there any abnormalities of iron metabolism in polycythemia vera as there are in hemachromatosis?

DR. GEORGE THOMA: To answer your last question first, John Lawrence and his group have probably done the most extensive study on polycythemia; they have found no abnormalities in iron metabolism in polycythemia.

In polycythemia, the age old method of treatment has been phlebotomy. As Dr. Broun mentioned, there are difficulties in the phlebotomies in that one can ultimately make the individual anemic in terms of a low hemoglobin; one may develop microcytic-hypochromic anemia. There is also at least some feeling that repeated phlebotomies are a secondary stimulus to further bone marrow production of red cells. Another difficulty encountered in using phlebotomy alone is the hypoproteinemia that results. Unless one retransfuses these people with plasma, one is removing a large amount of plasma. This can be a real danger. In those patients that have a tremendously elevated hematocrit ranging from 70 to 80 per cent, one has to remove from 3000 to 4000 cc. of blood. These people almost surely would have to be given back some of their own or someone else's plasma. This is an undesirable feature.

So if it is felt that phlebotomy alone is not an ideal choice of therapy in polycythemia, then what is? The thing that one aims at, of course, is to reduce the production of red cells by the bone marrow. One should be aiming at a little more than this because polycythemia is not a disease of the red blood cells alone but it is a disease which by its very definition implies that there is an overproduction of platelets and white cells; it is only the erythrocyte component that is evident for most of the course of the disease. A large percentage of these people die with a granulocytic leukemia; thus it really is a disease in which all three elements can, or ultimately can, become involved. Thus, the destruction of red cells alone is not really the best answer. I really should not even say the destruction of red cells because it is the reduction of production of red blood cells that is desired.

Now in reference to bone marrow toxins, there are two types of bone marrow toxin: first, the more specific ones like phenylhydrazine reduce the formation of red cells alone and they have no effect on the other cells; they also are difficult to control and have a certain degree of other toxicity. More generalized bone marrow toxins like nitrogen mustard will reduce the production of red cells but there is an almost as marked reduction in the white cells and platelets. In nitrogen mustard therapy, which can become unpleasant over a long period of time, the patient's tolerance to nitrogen mustard decreases tremendously.

That brings us to what is felt is the treatment of choice in polycythemia, and that is the use of radioactive phosphorus. One other method of treatment that I did not mention is whole body radiation. One can think of whole body radiation and P^{32} in the same discussion. I would say that perhaps 90 per cent of the action of P^{32} is whole body radiation; P^{32} is distributed throughout the bone marrow system so that in effect one is getting more or less whole body radiation. In the usual doses of P^{32} given for polycythemia, the same dose of whole body radiation equivalent to some fifty to seventy-five R. of spray radiation is being effectively given. Of course the spray radiation works because the entire bone marrow system is being sprayed. There really is no difference in the end results because whole body radiation and P^{32} are accomplishing the same thing, except that again giving someone seventy-five R. in total body radiation and repeating this at any kind of intervals at all causes a good deal of radiation sickness. There is a little bonus factor in P^{32} in that it is incorporated to a higher degree in the nucleoproteins of abnormal basic cells than it is in a normal system. Therefore there is a little bit of selectivity in the action of P^{32}, but fortunately it is not sufficient for P^{32} to stand on this merit alone, because radiation of the bone marrow is still accomplished as an end result.

How do you use, when do you use, and how much P^{32} do you use? There is no effect on circulating red cells by P^{32}, just as in the same way there is no effect by whole body radiation on circulating red cells. Those that are already produced will live their normal life span, in spite of radiation. If one gives an individual P^{32}, one is only going to depress and not completely suppress the subsequent production of red cells. Therefore, there is no clinical manifestation in terms of the hemogram in anything less than about six to twelve weeks because the normal span of life of the red cells is about 120 days; there is no difference in the rate of blood destruction in these people. Thus, in an individual with a hematocrit of 68 or 70 per cent in whom there is the ever present threat of an episode of thrombosis, administering P^{32} and waiting for this to reduce the hematocrit is not the answer to the situation. Therefore it is felt that these people should be bled by phlebotomy down to at least a safe hematocrit, somewhere in the low 50 per cent range, if not lower. Then once this has been accomplished one can treat them with P^{32}.

Assuming that the patient has been bled down to a safe hematocrit, P^{32} is administered and taken up by the bone marrow. This destroys a certain amount of bone marrow and there is a decreased production of red cells. How much does one give? One has to feel his way with this. Probably the best starting dose is approximately 4 millicuries of P^{32} i.v. The amount of total body radiation depends on the weight of the individual. If there is an elevated platelet count one could perhaps give 5 millicuries. If there is a decrease in the platelet count one might give a millicurie less than one would normally give. These are initial doses. Subsequent doses depend on the individual cases. It is said that the remission in polycythemia induced by P^{32} ranges from one to seven or eight years from the initial dose of P^{32}. I do not think that is quite correct; one should say that the remission is from one to seven or eight years from the doses required to accomplish initial control. In other words, if one gives 4 millicuries of P^{32} there are not many cases in which one should expect not to have to give a subsequent dose of P^{32} in a matter of four to six months. The best guide to therapy, of course, is the hematocrit.

The hematocrit usually is watched monthly and as one begins to see a significant rise in this value, usually a few percentage points every month, one can re-treat them at about a hematocrit of 55 per cent by another dose of P^{32}. If it has risen to the range of 70 per cent, phlebotomy is performed and then another dose of P^{32} is administered.

The success of P^{32} has certainly been remarkable. I cannot give any figures comparing the life expectancy and remission after treatment with P^{32} with other types of treatment because there have not been any real statistics compiled. Now, a question has often come up as to whether P^{32}, which is a form of radiation, causes an increase in the incidence of leukemia in patients treated for polycythemia vera. So far, a survey of all the cases concerned, shows that it does not. There is still a higher percentage than normal of leukemia in these people, but it does not appear to be any higher in the cases of P^{32} therapy. Thus, our final conclusion on the treatment of polycythemia vera is that P^{32} is the treatment of choice when coupled with phlebotomy as it needs to be in most cases.

NEW ERA IN MEDICAL RESEARCH

The United States is entering a new era in medical research, unparalleled either here or abroad. "For the first time, . . . the limitation on progress is due more to manpower facilities than to moneys available for current support of research," in the words of Dr. James Shannon, Director of the National Institutes of Health, when he testified before the Senate Appropriations Subcommittee.

The ramifications of this unprecedented situation were examined by John T. Connor, president of Merck & Co., Inc., in a speech before the Association of Military Surgeons, in which he stressed the need for more basic research.

Total expenditures in 1957 for medical research rose almost to the $400 million mark, with the government paying more than half. The pharmaceutical industry spent $127 million, with the balance from universities, foundations and various health groups.

To get an over-all evaluation of the research picture, Merck commissioned the firm of Douglas Williams Associates to make a nationwide sampling of research leaders. The organization questioned a cross section of leaders from government, the pharmaceutical industry, universities, research institutes, foundations and the fund-raising organizations in the health field. More than 100 interviews were made, some lasting as long as half a day.

Connor reviewed the preliminary results of this survey. He said one interesting result was a lack of any agreement on major problems. "There was even a noticeable lack of considered judgment," he said, adding that the researchers recognized this and felt that critical studies are needed in order to assure the best use of money and scientific personnel.

According to Connor, "There is skepticism about the wisdom of the Federal Government becoming, through appropriations, the dominant factor in this field.

"There is widespread suspicion that big sums are being wasted on projects that had no better excuse for existence than that they were invented to get a piece of that easy federal money. But there is also delight in many quarters that Congress is finally spending for the conquest of disease something in the neighborhood of the cost of the *U.S.S. Forrestal.*

"There is some real concern, however, that the public is being misled into believing that we can buy discovery with money; that nine times as much money in medical research will cure nine times as many diseases or one disease in one ninth the time. . . ."

Most researchers, according to Connor, believe we must attract and develop more superior research talent. The result of the current shortage has led to "pirating" of qualified men.

The survey indicates that "many academic people believe the NIH has done an excellent job of handing out all this new money without directly trespassing on the freedom of the universities to do research." Some asked the question, however, of whether "we are relying on federal research budgets to keep the medical schools going."

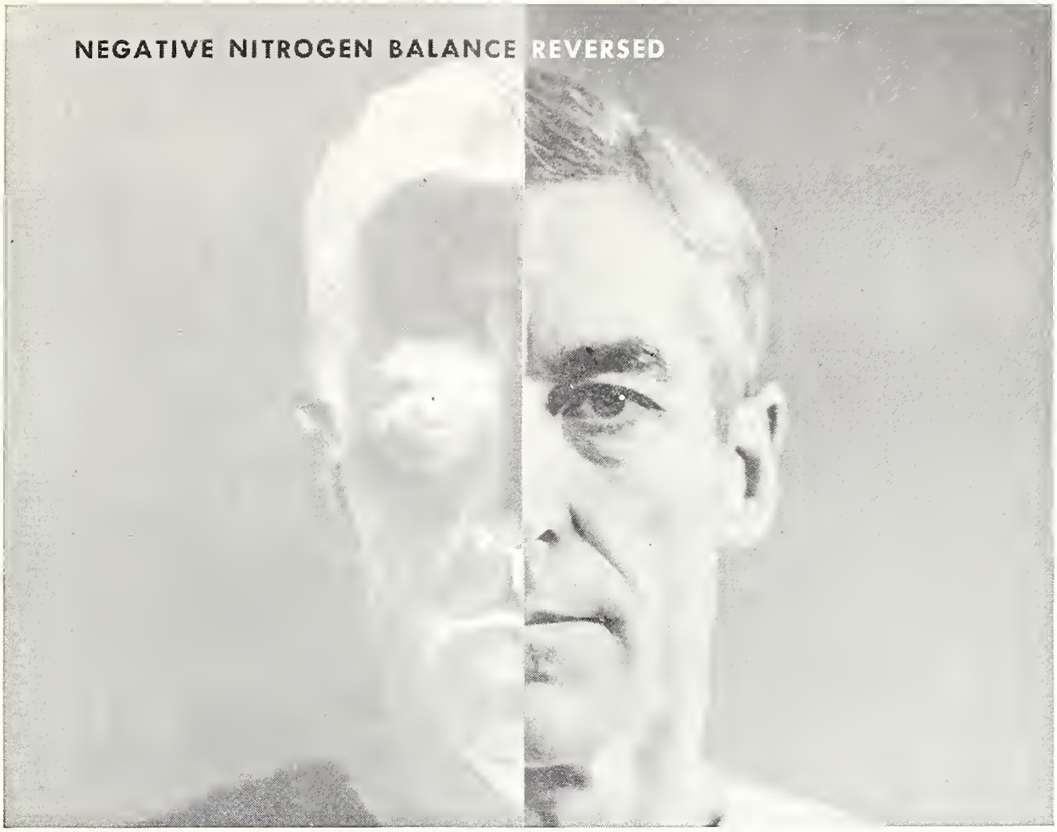
On the subject of basic research, Connor said, "The survey brought out quite clearly the firm belief that, until public understanding and attitudes change, Congress will never appropriate more than a handful of dollars for the essential task of pushing back the frontiers of knowledge in the medical and biological sciences. Apparently, if we want to do basic research as a prerequisite for curing, alleviating or preventing disease, we shall have to, it is said, engage in a kind of subterfuge; we shall have to raise money from the public for one avowed purpose—to fight cancer, for instance—and give it to the scientists for another purpose, such as fundamental research in the biochemistry of steroids, which may or may not lead to a cancer cure, or a drug for arthritis, or for something else."

Connor suggests that the government must come to an understanding of the importance of basic research, and budget accordingly "on a far-sighted, long-term and broad-gauged basis."

A.M.A. PREPARES NEW TV HEALTH FILMS

The American Medical Association announces that two new 10 minute films will be available about February 1 for use on local television and for showings to school and church groups. "The Silent Killer" deals with the dangers of carbon monoxide poisonings from gasoline exhausts. "Out of Step" tells the dramatic story of an accident which occurs to a child whose father has always ridiculed safety measures, first aid and other so-called "boy scout" ideas. The Scouts, of course, come to the rescue in the end!

Both of these black-and-white sound films are available on loan to medical societies, local television stations (with medical society approval), health departments, voluntary health agencies and schools. Only charge is for return shipping. These films were developed by the Bureau of Health Education and produced by the Marshall Organization. W. W. Bauer, M.D., Bureau director, serves as narrator.



Nilevar® | stimulates protein synthesis, corrects negative nitrogen balance

Increased nitrogen loss, with resulting negative nitrogen balance, occurs in infection, trauma, major surgery, extensive burns, certain endocrine disorders and starvation and emaciation syndromes. The intrinsic control of protein metabolism is lost and a protein "catabolic state" occurs. A patient requiring more than ten days of bedrest usually has had sufficient metabolic insult[1] to precipitate such a "catabolic" phase.

Nilevar (brand of norethandrolone) has been used in patients with varied conditions including hyperthyroidism, poliomyelitis, aplastic anemia, glomerulonephritis, anorexia nervosa and postoperative protein depletion. The patients gained weight and felt better. It was concluded[2] that "the drug certainly caused a reversal of rather recalcitrant or progressive catabolic patterns of disease."

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent.

The suggested adult dosage is three to five tablets (30 to 50 mg.) daily. For children 1.5 mg. per kilogram of weight is recommended.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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[1] Axelrod, A. E.; Beaton, J. R.; Cannon, P. R., and others: Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Incorporated, (March) 1954, p. 100.

[2] Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

SEARLE

Special Articles

Address of the President

DAVID B. ALLMAN, M.D., *Atlantic City*

THE LIVES OF all men are highlighted by certain events that outshine all other experiences. Frequently, these highlights are associated with a person, home, place of business, or a city.

In my own case three of the most important events in my life have taken place here in Philadelphia. I was born here, I was graduated from Jefferson Medical College, and I was married in Philadelphia. Quite frankly, I am proud that these events took place here—the cradle of American Independence and the birthplace of the American Medical Association.

Today I consider this occasion—the 11th annual Clinical session of the American Medical Association—another of the most prominent events in my life. Indeed, I rank it with the other three—birth, graduation and marriage—for I have been given this most suitable opportunity to stand and speak for more freedom, not less, in America and in my beloved medical profession.

If I had one wish today, it would be that I could stimulate within every medical doctor in America the fire and devotion for personal and political freedom as expressed by our forefathers 181 years ago here in Philadelphia.

Like our early American patriots, other people around the world recently have demonstrated their zeal for freedom. Unfortunately, in East Berlin, Poland and Hungary the chants of the freedom-seekers have been silenced in tragic fashion. Nevertheless, the seed of freedom lives on, even under the tyrant's heel. Whether freedom grows again in those lands will depend upon how determined the people are to work for it, live for it and fight for it.

The lesson for us, from these modern European and early American freedom fighters is obvious: We cannot let this democracy—our vehicle of freedom—slip away from us; we must ever strive to preserve progress and push on to new heights.

I believe that freedom is a never-ending struggle, requiring the energy of each citizen no matter what his station in life. Our lives, our futures and our hopes are dependent upon the preservation of freedom. We have a duty to prepetuate it. If we fail in that duty, our republic will perish, bringing an end to a system of government that has brought more good to more people than has ever been known.

THE FORAND BILL EVILS

There are many so-called easier ways, of course, of providing more good to more people than the free enterprise method, but they initially or eventually involve bigger and bigger government and inevitably lead to the exchange or forfeiture of our God-given rights.

The latest promise of a better life for more people comes to the American people in an attractive, but ill-directed expansion of Social Security.

This proposed legislation, introduced by Rep. Forand (D.-R.I.) in the first session of the 85th Congress, would provide hospitalization and surgical benefits to all old age and survivors insurance beneficiaries. If passed, the federal government would withdraw Social Security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons —some 12 to 13 million—eligible to receive old age and survivors benefits.

This is Socialized Medicine. This is Oscar Ewing's National Compulsory Health Insurance all over again. A decade later perhaps and for a limited number of people but it is "cut from the same cloth" and, I am sure, emanates from the same minds.

It is the beginning of the end of the private practice of medicine.

It is the death knell for the young and growing voluntary health insurance industry.

It is a serious threat to the well-being and local autonomy of the voluntary hospital at the community level.

It is Socialism under the auspices of the federal government.

Gentlemen, I submit that this bill is at least nine parts evil to one part sincerity!

For 35 years I practiced surgery, and never once did I operate without first making a full diagnosis of the case. Furthermore, none of you prescribes therapy without an adequate diagnosis. This is the way good medicine has been practiced.

Now along comes a new concept. A solution to a problem without first ascertaining its true scope. In short, prescribing treatment without a diagnosis about (1) the economic resources of our older population, (2) the present and planned programs of voluntary insurers, (3) indigent care at the state level, (4) the incidence of hospitalization and illness by age groups, and other complex research questions.

This procedure may be an advance in the field of vote-getting, but it would be a complete failure in medical and surgical practice.

Delivered at the opening session of the House of Delegates at the Clinical Meeting of the American Medical Association, Bellevue Stratford Hotel, Philadelphia, Pa., Tuesday, December 3, 1957.

VOLUNTARY METHOD FAR SUPERIOR

The physicians of America want to give only the best medical care to their patients, and I believe that government medicine through OASDI will be detrimental to our people. We have the experiences of Socialized Medicine in other countries to support this belief.

For two decades the American people have supported and benefited from voluntary health insurance. During that time the health insurance industry has had unprecedented growth.

The number of persons covered in every age bracket has been rising steadily. The type of plans and the quality of coverage have improved enormously, and, I predict, will continue to improve.

No one claims, of course, that the competitive voluntary health coverage system is perfect, but it is far superior to government medicine.

In the field of old-age coverage the health insurance industry is beginning to make rapid and far-reaching strides. Because of the great changes in medicine and in medical care the industry has embarked upon vast experimentation with many plans, different approaches, and coverage for various groups within the old-age population. The experiments are being tailored to fit the variety of needs.

Labor and management, too, are getting together in an attempt to provide health insurance coverage for retiring personnel.

Many of the plans devised will not at first be perfect. I am sure, however, that as a result of the many studies in the field of old-age coverage we will come up with an answer—perhaps many answers—to the compound issue.

I personally feel that we are on the verge of grand achievements in furthering the well-being of our older population. Medical science is leading the way, and the health insurance industry must proceed with alacrity with the best possible coverage programs on a non-cancellable basis.

I firmly believe that dynamic competition in the health insurance industry will bring sweeping changes and new ways to improve personal security for older people without the loss of personal freedom for these persons and all their fellow citizens.

NO MONOLITHIC ANSWER POSSIBLE

The issue of old-age health protection is complex; it embodies many problems. Consequently, it is not possible to solve the issue with a monolithic anwer like the Forand bill.

I admit that the Forand proposal would relieve a large segment of our population—the older folks, their children, management, labor unions, physicians and others—of their responsibilities, but I do not believe that the surrendering of the principle of self-reliance and the experience of private know-how for the abuse of government dictation can solve the nation's problems.

In addition, you know as well as I do that special privileges for any class of citizens lead directly to demands by others for equal governmental treatment. Consequently, government will then make further inroads into our private lives.

Are we not seeing this happen in the field of federal disability insurance under Social Security with new proposals to lower the eligibility age?

We can be sure that passage of the Forand bill would soon generate new proposals to provide government health insurance protection for the entire population.

In an effort to acquaint and alert our profession, the hospitals, allied fields and the public to the dangers of the Forand bill, your American Medical Association has begun to circulate information calling for individual and group action against this proposed legislation.

Three weeks ago I sent out a letter and a Forand bill fact-sheet to the medical chiefs of staff and administrators of all hospitals.

My plea this morning is for you to embark upon a local action-campaign to enlist the full support of your community against this legislation.

As in our fight against national compulsory health insurance, the stakes are high for the American people, for the medical profession, for the hospitals, and for all allied health groups. We dare not lose.

We must, however, keep in mind that in our struggle to preserve the private practice of medicine we are fighting for the basic freedoms which have enabled democracy to thrive and our nation to prosper.

In this campaign to preserve the freedom of medical practice, we will be criticized for being negative and accused by our opponents of being reactionary. This is to be expected. It is the accepted technique used to discredit those who would oppose Socialism.

It is fitting that our declaration of medical freedom be made here in Philadelphia—where 183 years ago the first Continental Congress assembled to protest against the loss of colonial rights and privileges. Where the Declaration of Independence was signed two years later. Where the Liberty Bell and Constitution Hall remind us that "Eternal Vigilance is the Price of Freedom."

Perhaps it is also fitting to remind you that the patriots of 1776 were not without their critics. But their love of liberty and quest for freedom was not to be deterred. May we in the medical profession supply the leadership necessary to preserve freedom with the same determination.

PRINCIPLE, NOT EXPEDIENCY

At the last meeting of this House of Delegates you directed the Board of Trustees to conduct an educational campaign to acquaint the membership with the Association's reasons for opposing the compulsory inclusion of physicians under the Old Age, Survivors, and Disability Insurance program of the Social Security System. This has been done. Three articles appeared in the Journal and an individual mailing was made to the profession, a pamphlet entitled "Which Way?"

Only a relatively few replies were received as a result of this mailing and in response to my President's Page on this same subject. Of those who did reply, however, many objected to the Association's position.

A number of the letters criticized the American Medical Association for its unwillingness to conduct a poll of its members on this issue. You will recall that a resolution to this effect was rejected by your reference committee in June.

Perhaps some explanation is in order, at this time, to demonstrate the logic behind this action.

We must not forget that the American Medical Association is a federation. And as such its policies are established by the elected delegates representing the state associations.

To draw a parallel—the United States is also a federation and as such is governed by the elected representatives from each state. In the American Medical Association House of Delegates as in the United States Congress policy or legislative action is not determined by popular vote.

This procedure, rather than decision by popular vote, has been followed by our government and our Association because it permits a more considered opinion to prevail in formulating policy.

I confess that there are honest differences of opinion on this issue. But the disturbing point of disagreement, to me, centered around our belief that if the medical profession were to request coverage under OASDI it would tend to weaken our position in opposing the expansion of medical benefits under the Social Security System. Many also expressed the opinion that if compulsory coverage is good enough for the lawyers and dentists it is good enough for medical doctors.

I for one am not willing to accept even a little bit of Socialism regardless of others who may be so inclined. I am opposed to the placement of expediency and the dollar sign ahead of principle. I prefer to keep our government headed toward the goal of as much freedom as possible, as little government interference as necessary rather than take the easy cloverleaf turn leading to more government and the emasculation of individualism.

Just as I am opposed to the enactment of new government health and welfare programs such as the Forand bill, so I am opposed to any extensions of certain existing programs that are now the law of the land.

For example, when the present Medicare program became law, our Association worked with the federal government in an effort to implement the program. However, our A.M.A. Task Force made it clear that the program carried with it "some danger to the private practice of medicine."

"Constant vigilance will be necessary," it said, "to prevent any significantly adverse effect on the private practice of medicine."

In its interim progress report to Congress the Department of Defense recommended that Medicare "be continued as at present until studies and experience indicate that modifications are timely and appropriate."

I sincerely hope that future modifications will contain the recommendation of this House of Delegates to place the remuneration of physicians on an indemnity basis wherever states desire it.

SINGLENESS OF PURPOSE NEEDED

If we are to stand fast against those who would promote an unhealthy climate for private effort and ingenuity, we physicians must have a singleness of purpose within our own ranks. We must present a united front, ready to rally to the cause of the best possible medicine for all Americans.

It is not enough, either, that only the older hands in the local and state medical societies take the time and exert their efforts to curb the evils of outside encroachment and control of medical practice. We need the young members as medical leaders in the socio-economic field. They can provide much of the new imagination, vigor and positive programs so urgently required to defend the sound principles of the founding fathers of our nation and of our medical association.

We all know there is work to be done if our precious freedoms are to be preserved. Just as our profession is turning more and more to the prevention of disease, so must we apply our talents to the preservation of our nation's socio-economic health and to the prevention of political diseases that can cripple, waste away and kill our freedom.

The work we have to do, gentlemen, is truly an emergency. It cannot be put off; it cannot be accomplished by a few hands overnight. It demands that all men of high principle work in harmony, in strength and with all good speed.

Back in 1949-50 we moved in this manner to meet an ill-advised, but heavily supported government threat. Our efforts then made it possible for us to be a free profession undominated by government.

Now we are called upon again to stem a new and equally serious peril.

How effective we are in our unified efforts to deter the trend toward intervention into medicine may well determine whether we are to remain an unhampered profession dedicated to giving patients what they want most—good, individual, personalized medical care.

In rallying Americans for liberty in 1775, the great patriot Thomas Paine wrote a stanza in his poem, "The Liberty Tree," in *Pennsylvania Magazine*. It is appropriate now as the medical profession stands here in the cradle of liberty and speaks for freedom:

> "From the east to the west blow the trumpet to arms!
> Through the land let the sound of it flee;
> Let the far and the near all unite with a cheer,
> In defense of our Liberty Tree."

AMA Clinical Session

Philadelphia, Pennsylvania
December 3 to 6, 1957
Report of Missouri Delegates to the AMA

JOSEPH C. PEDEN, M.D., *St. Louis;* F. L. FEIERABEND, M.D., *Kansas City;* DURWARD G. HALL, M.D., *Springfield,* AND H. E. PETERSEN, M.D., *St. Joseph*

Report of this meeting by H. E. Petersen, M.D.

THE ELECTED Delegates from Missouri were all present at the Session except F. L. Feierabend, Kansas City, who was unable to attend because of illness. Alternate Delegate, Rolla B. Wray, Nevada, served in his place. Dr. Durward G. Hall, Springfield, served as Chairman of the Reference Committee on Reports of Officers.

Also present from Missouri were H. Relton McCarroll, St. Louis, Delegate to the AMA from the Section on Orthopedics; Alphonse McMahon, St. Louis, Chairman of the AMA Committee on Scientific Assembly; James R. McVay, Kansas City, former Trustee of the AMA, and W. J. Shaw, Fayette, former alternate Delegate to the AMA.

The scientific program was considered to be outstanding and many favorable comments were heard. The scientific program is arranged for each session of the AMA by the Committee on Scientific Assembly, of which Alphonse McMahon is the Chairman.

Dr. Cecil W. Clark, Cameron, Louisiana, was named 1957 General Practitioner of the year by the House of Delegates, after his selection by a special committee of the Board of Trustees, for outstanding community service. Dr. Clark, a 33 year old country doctor, was Cameron's "big man" when hurricane Audrey struck Louisiana last June 27 and took a toll of more than 500 lives. The hurricane was the nation's worst natural disaster during 1957.

Despite severe personal tragedy, Dr. Clark worked around the clock for three sleepless days to attend the hundreds of wounded. Much of his effort was expended during a period when he was under the impression that his wife and all five children had been killed. It was not until 24 hours after the storm abated that he learned Mrs. Clark and two of the children had been rescued.

Dr. Edwin S. Hamilton, Chairman of the AMA Board of Trustees, presented the gold medal award to Dr. Clark at the opening session of the House. The award is designed especially to honor the general practitioner who has given exceptional service to his patients and to his community. It has been presented annually since 1948.

Fluoridation of public water supplies, free choice of physician, the Heller Report on organization of the American Medical Association, the Forand Bill providing hospital and surgical benefits for Social Security beneficiaries, guides for occupational health programs covering hospital employees, distribution of Asian influenza vaccine and guides for the medical rating of physical impairment were among the variety of subjects acted upon by the House of Delegates.

Speaking at the opening session on Tuesday, Dr. David B. Allman,* Atlantic City, AMA President, called for "more freedom, not less, in America and in the medical profession." Dr. Allman urged the delegates to embark on local action campaigns to enlist full community support in opposition to the Forand Bill, a pending Congressional proposal which would provide hospital and surgical benefits for persons who are receiving or are eligible for Social Security retirement and suvivorship payments. The Forand Bill, he said, is "cut from the same cloth" as national compulsory health insurance and "emanates from the same minds."

Total registration at the end of the third day of the meeting, with half a day still to go, had reached 5,375, including 2,562 physician members.

FLUORIDATION OF WATER

In settling the most controversial issue at the Philadelphia meeting, the House of Delegates approved a joint report of the Council on Drugs and the Council on Foods and Nutrition which endorsed the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood. The 27 page report on the study which was directed by the House at the Seattle Clinical Meeting one year ago contained these conclusions:

"1. Fluoridation of public water supplies so as to provide the approximate equivalent of 1 ppm of fluorine in drinking water has been established as a method for reducing dental caries in children up to 10 years of age. In localities with warm climates, or where for other reasons the ingestion of water or other sources of considerable fluorine content is high, a lower concentration of fluoride is advisable. On the basis of the available evidence, it appears that this method decreases the incidence of caries during childhood. The evidence from Colorado Springs indicates as well as reduction in the rate of dental caries up to at least 44 years of age.

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* The complete text of Dr. Allman's presentation appears on page 140 of this issue of MISSOURI MEDICINE.

"2. No evidence has been found since the 1951 statement by the Councils to prove that continuous ingestion of water containing the equivalent of approximately 1 ppm of fluorine for long periods by large segments of the population is harmful to the general health. Mottling of the tooth enamel (dental fluorosis) associated with this level of fluoridation is minimal. The importance of this mottling is outweighed by the caries inhibiting effect of the fluoride.

"3. Fluoridation of public water supplies should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm of fluorine."

FREE CHOICE OF PHYSICIAN

Acting on the issue of free choice in relation to contract practice, the House passed a resolution which reaffirmed approval of previous interpretations of the Principles of Medical Ethics by the Association's Judicial Council and directed that they be called to the attention of all constituent associations and component societies. One Council opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be determined to be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available." The resolution also cited a Council opinion, published in the October 19, 1957, issue of *The Journal of the A.M.A.*, which stated that the basic ethical concepts in both the 1955 and 1957 editions of the Principles of Medical Ethics are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1927 Council report also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgement of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

In another action related to the issue of free choice, the House adopted a resolution condemning the current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund "as tending to lower the quality and availability of medical and hospital care to its beneficiaries." The resolution also called for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

THE HELLER REPORT

Acting on the report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on ten specific recommendations:

1. The office of Vice President will be continued as an elective office.

2. The offices of Secretary and Treasurer will be combined into one office to be known as Secretary-Treasurer, and that officer will be selected by the Board of Trustees from one of its number.

3. The duties of the Secretary-Treasurer will be separated from those of the Executive Vice President.

4. The office of General Manager will be discontinued, and the new office of Executive Vice President will be established. The latter, appointed by the Board of Trustees, will be the chief staff executive of the Association.

5. The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the Executive Vice President.

6. The voting members of the Board of Trustees will be limited to eleven—the nine elected Trustees, the President and the President-Elect. The Vice President and the Speaker and Vice Speaker of the House of Delegates will attend all Board meetings, including exceutive sessions, with the right of discussion but without the right to vote.

7. The House disapproved of the proposal to elect the Trustees from each of nine physician-population regions.

8. The office of Assistant Secretary will be discontinued, and a new office of Assistant Executive Vice President will be established.

9. The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National Defense.

10. The Speaker of the House will appoint a joint and continuing committee of six members, three from the Board of Trustees and three from the House, to redefine the central concept of AMA objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies and study socio-economic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

THE FORAND BILL

The House condemned the Forand Bill as undesirable legislation, approved the firm position taken in opposition to it and expressed satisfaction that the Board of Trustees has appointed a special task force which is taking action to defeat the bill. In a related action, giving strong approval to Dr. Allman's address at the opening session, the House adopted a statement which said:

"It is particularly timely that our President has so forcefully sounded the clarion call to the entire profession for emergency action. With complete unity, definition and singleness of purpose, closing of ranks with all age groups and elements of our organization we must at this time stand and be counted. Thus we can exert the physician's influence in every possible direction against invasion of our basic American liberties in the form of proposed legislation alleged to compulsorily insure one segment of the population against health hazards at the expense of all."

HEALTH PROGRAMS FOR HOSPITAL EMPLOYEES

A set of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group" was approved by the House. The guides were developed by a joint committee of the American Medical Association and the American Hospital Association and already had been formally approved by the A.H.A. They include these statements:

"Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the technics of preventive medicine which have been found by experience in industry to approach constructively the health requirements of employees.

"It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program."

ASIAN INFLUENZA VACCINE

The House considered three resolutions dealing with the Asian influenza immunization program and then adopted a substitute resolution calling attention to "certain inadequacies and confusions in the distribution of vaccines" and directing the Board of Trustees to seek conferences through existing committees "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interest of all the people may be served." The resolution pointed out that the American Medical Association already has a joint committee with the American Pharmaceutical Association and the National Association of Retail Druggists, in addition to a liaison committee with the Drug Manufacturers Association.

MEDICAL RATING OF PHYSICAL IMPAIRMENT

The House accepted a 115 page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back" which was developed by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The delegates commended the committee for doing "a superb job on this difficult subject" and expressed pleasure that the guides will be published in *The Journal of the A.M.A.* The guides are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

MISCELLANEOUS ACTIONS

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study neurologic disorders in industry;

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary medical research and correlate and disseminate the results of studies already under way;

Decided that informational materials which are sent to AMA delegates should also be sent to all alternate delegates;

Affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other lawful groups provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians;

Instructed that the appropriate committee or council should engage in conferences with third parties to develop general principles and policies which may be applied to the relationship between third parties and members of the medical profession;

Urged state medical society committees on aging and insurance to make continuing studies of preretirement financing of health insurance for retired persons;

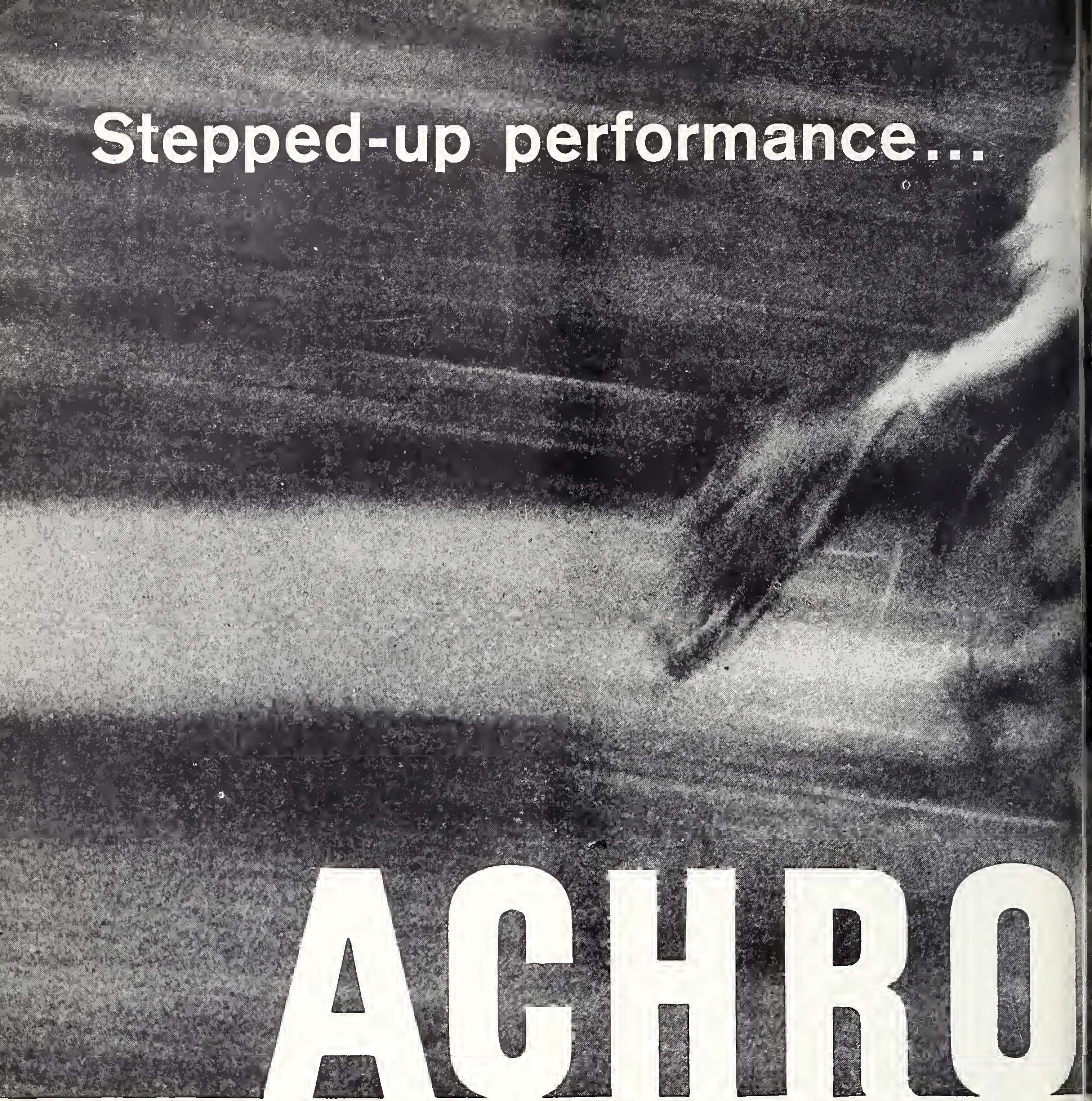
Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on veterans' medical care during 1958;

Asked the Board of Trustees to study the feasibility of having the Association finance a thorough investigation of the Social Security system by a qualified private agency;

Suggested that physicians and their friends make a vigorous effort to obtain Congressional enactment of the Jenkins-Keogh Bills;

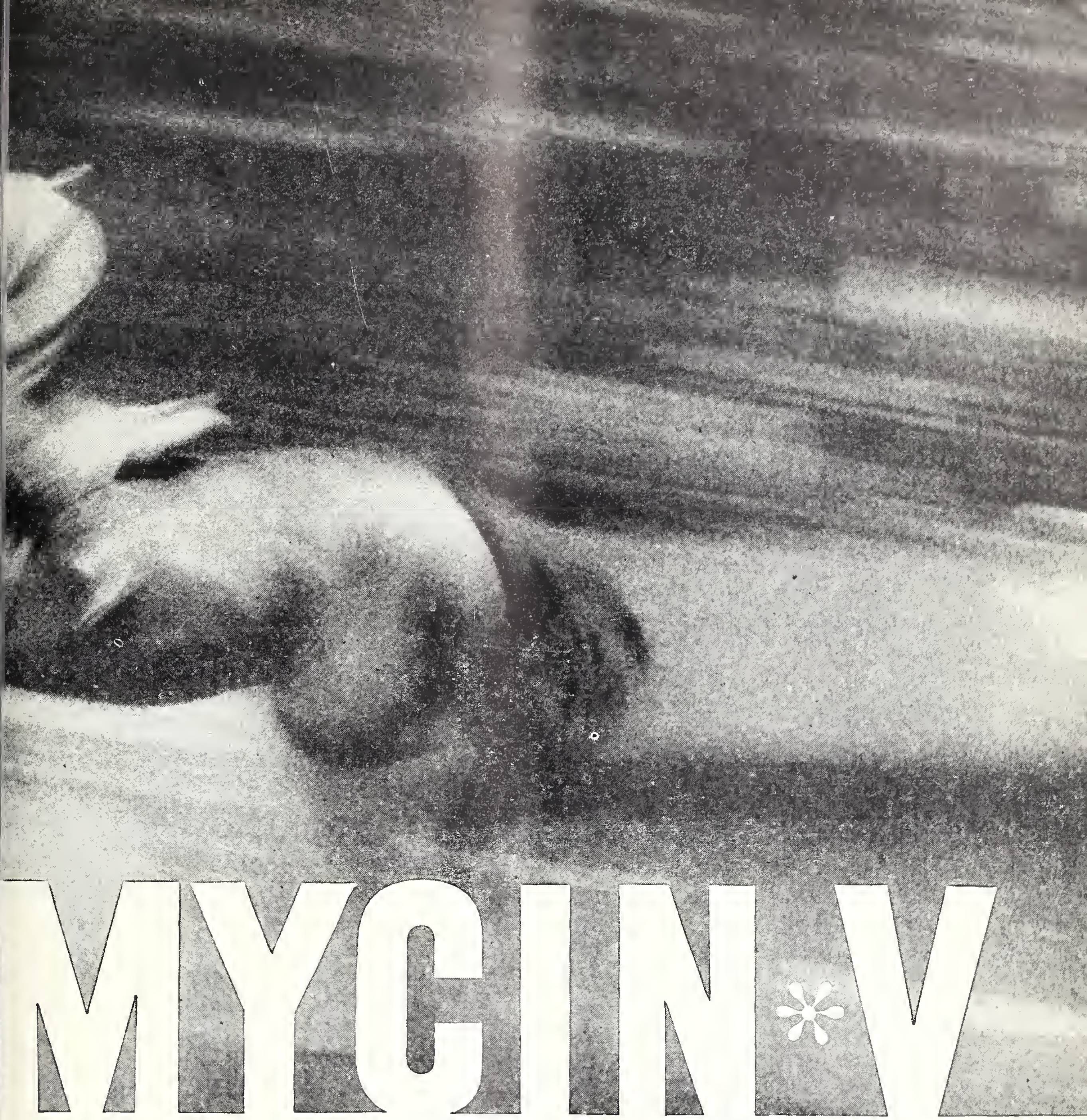
Approved the "Suggested Guides to Relation-

(Continued on page 164)



New rapid-acting ACHROMYCIN V Capsules offer more patients consistently high blood levels—at no sacrifice to the broad anti-infective spectrum of ACHROMYCIN Tetracycline, its low incidence of side effects, or its dosage and indications.

The pure, unaltered crystalline tetracycline HCl molecule of ACHROMYCIN, now buffered with citric acid, provides



Tetracycline HCl Buffered with Citric Acid

prompt and high blood levels, faster broad-spectrum action ...rapidly decisive control of infections. New ACHROMYCIN V Capsules do not contain sodium.

REMEMBER THE V WHEN SPECIFYING ACHROMYCIN V

CAPSULES: (blue-yellow) 250 mg. tetracycline HCl (buffered with citric acid, 250 mg.); 100 mg. tetracycline HCl (buffered with citric acid, 100 mg.). **ACHROMYCIN V DOSAGE:** Recommended basic oral dosage is 6-7 mg. per lb. body weight per day. In acute, severe infections often encountered in infants and children, the dose should be 12 mg. per lb. body weight per day. Dosage in the average adult should be 1 Gm. divided into four 250 mg. doses.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK Lederle
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President's Page

I hope you have taken the time to write your congressman and tell him you are opposed to the Forand bill. If you have not, I hope you will before it is too late.

This bill, as you know, would give all persons entitled to social security free hospitalization and surgical care. Social security taxes would be increased to pay the bill.

This tax increase isn't touched on much by the backers of this legislation introduced by Rep. Aime J. Forand, Rhode Island Democrat. They naturally don't want to stress what it would cost a worker and his boss—because it would hike their combined maximum payments 70 per cent from $200 a year to $345. This is not to mention 1975 when the tax would reach a top of nearly 10 per cent of a worker's salary. While this proposed additional cost would affect us as employers, it is not the really important point for us.

Our main concern is what it will do to the practice of medicine, as we know it. How will it affect our patients through the years, if this legislation goes through?

That, of course, is not an easy one to answer. But one thing is clear. This will be the beginning of socialized medicine and the eventual end of the doctor-patient relationship that has meant so much to medical care in our nation. In its place we will have a step-by-step absorption of medicine by Federal bureaucracy.

We know by observation that socialized medicine hasn't worked out well in England. In fact, socialization hasn't worked out well in any segment of England's economy. Instead private initiative virtually has disappeared in the face of nationalization of industry and ruinous taxation that has resulted in virtual redistribution of the wealth.

This may seem a little far off the subject to you, but it isn't. It merely illustrates how socialism in one area breeds it in another. It should be stopped whenever it pops up.

Enactment of the Forand bill would be a heavy blow to our growing voluntary health insurance plans. Missouri physicians have been one of the leaders in this field through their Blue Shield plans.

As president of the Missouri Medical Service Blue Shield Plan sponsored by the MSMA, I know we have gone to great lengths to make medical-surgical coverage available to our elder Missourians at reasonable rates. I know that the Blue Shield Plan sponsored by the Jackson County Medical Society has made the same effort.

I am a strong state's righter in this respect. I think the people of Missouri should be allowed to solve their own problems—not allow the Federal government to take over the reins.

We have always said we will take care of those unfortunates who can't pay. Let's say it again! Write your congressman and tell him! Use the mailing you received last month from the MSMA for background, and the address of your representative in Washington.

This will be a continuing fight, because if we are successful this time there will be other attempts. In fact, right now there are bills similar in many respects to the Forand measure also pending in Congress.

Our state medical association and the AMA can keep us informed, but it is up to us to do the writing from home.

Walter S Sewell M.D.

EDITORIALS

It's No Cure-All

An editorial and cartoon in the January issue of the *Missouri Farm Bureau News* show that those outside the medical profession also are upset at the threat contained in the Forand bill now in Congress. The Farm Bureau clearly points out the threat of socialized medicine contained in the labor-backed bill to provide free hospitalization and surgical care to all persons entitled to receive social security payments. The editorial follows:

Legislation proposing socializing medicine in this country has been introduced in Congress several times; the latest attempt to shatter American medical practices came in the form of H.R. 9467, which was introduced by Rep. Aime Forand (D., R. I.) in the closing days of the 85th session.

This bill proposed that the government provide hospitalization and medical benefits under the Social Security program. While this measure is not as far-reaching as the old national compulsory health insurance scheme, it would nonetheless be a start down the road toward complete socialized medicine.

Enactment of this latest medical measure would permit the government to withdraw social security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons eligible to receive old age and survivors benefits.

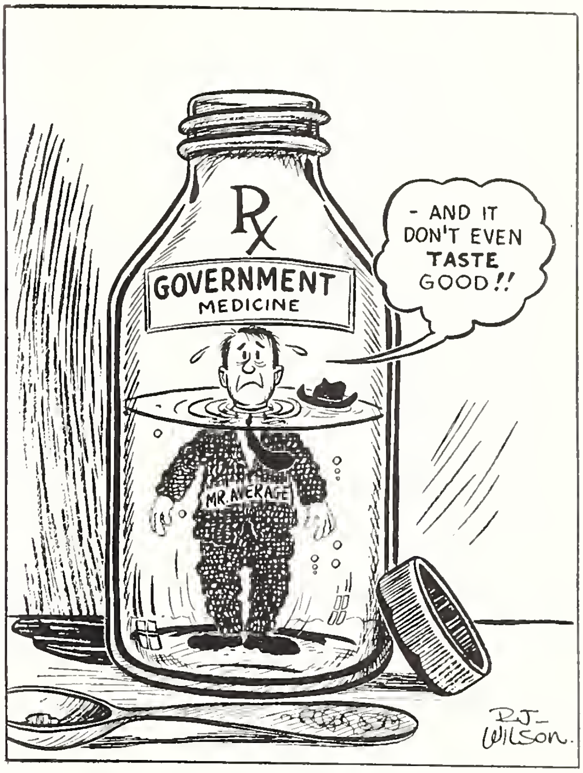
Farm Bureau has long been opposed to any form of compulsory health insurance. This organization maintains that greater emphasis should be placed on the advantages of voluntary health protection programs. Farm Bureau naturally is concerned with improving the health of rural people, and it is constantly urging that more attention be given our aging population.

At the same time Farm Bureau believes we can solve our health problems without a "cradle to grave" socialized medical plan such as England has today. Farmers know from experience that government aid is not a one-way proposition—today's farmer knows all too well that federal aid means less freedom of choice.

The American Medical Association has been fighting for a number of years for continuation of the present free enterprise system of medicine. Why should it do otherwise? Would not any profession do the same? Would not the nation's lawyers, writers, plumbers, electricians, accountants and others be opposed to "nationalization"?

As the A.M.A. pointed out recently government intervention in medicine would prove fatal. A small dose of socialized medicine, such as that proposed by the congressman from Rhode Island, would be a big step toward a catch-all national compulsory health insurance plan. A small dose like this latest proposal every few years would finally evolve into that big, fatal step of complete government control.

But federal control of medicine can only be staved off with adequate voluntary measures. Farm Bureau is vitally concerned with supporting and promoting health protection through voluntary measures designed to increase individual and family economic security and responsibility.



Progress in this direction has been phenomenal. But we must study the problem carefully and come up with with the right answers. This is no time for hasty action on the part of Congress.

The picture is too complex for anyone to say, "Government intervention is the cure-all."

Government intervention is never a cure-all.

It is heartening to know that we are not alone in our fight to keep the federal government out of the practice of medicine. We need a lot of support from other segments of our society if the Forand bill is to be defeated. However, it is our profession. We can't expect anyone else to protect us and our patients from socialized medicine.

Inadvertently, our most bitter enemy—Russia—may have come to our aid through its launching of the Sputniks. Congress may take a dim view of entering new fields of social legislation that could take billions of dollars when money is so sorely needed for national security.

Musings of the Field Secretary

Dr. George M. Ragsdale, Paris, Missouri, probably received his best fee on Sunday, December 29. This came in the form of a tribute paid him by the people of his community for his 50 years of medical service. He has practiced medicine in Paris, Monroe County, Missouri, for 50 years as of October 1957. In recognition of his loyal and faithful service to his patients, 700 people overflowed the Paris High School Auditorium Sunday afternoon, December 29, where a special program and reception were held to honor him.

A special committee of his many admirers had planned this attractive affair over a period of many weeks, unknown to the good doctor. The committee arranged a special luncheon for Doctor and Mrs. Ragsdale to precede the formal celebration. Members of the local medical society and their families attended the luncheon. Drs. Lawrence and Kathryn Epple, Mexico, representing the Audrain County Medical Society, and Yours Truly were also present.

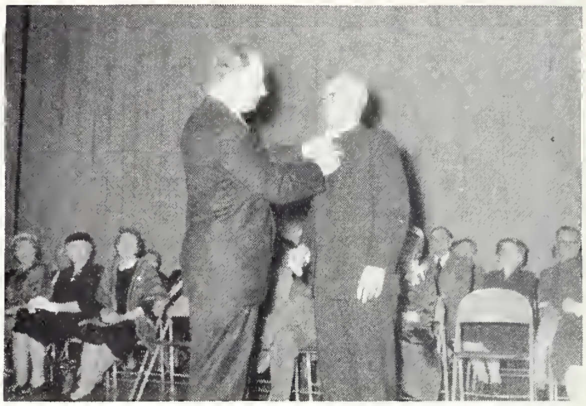
Dr. Ragsdale (left) is congratulated by Dr. Barnett, Mayor of Paris.

The afternoon program was opened by Floyd A. Barnett, M.D., Mayor of Paris, who officially designated this occasion as Dr. Ragsdale Day. The program embraced special musical numbers; reading of congratulatory telegrams including one from Dr. W. F. Francka, President-elect of the Missouri State Medical Association, and letters; appropriate short talks by close friends; the main address by Dr. J. Will Fleming, Jr., Moberly, and presentations of gifts and introduction of special guests.

Dr. Fleming, representing the Chariton-Macon-Monroe-Randolph County Medical Society, of which Dr. Ragsdale is a charter member, told of a number of interesting highlights dotting Dr. Ragsdale's career. At the close of his remarks he officially presented, on behalf of the Missouri State Medical Association, a 50-year medical practice pin to Dr. Ragsdale.

At the close of the formal program a beautiful silver coffee service was presented to Mrs. Ragsdale and a new 1958 Buick to the doctor.

The reception following the program was a refreshing example of the informality and friendly atmosphere of a community-wide function in a rural area.



Dr. Fleming places 50-year pin on Dr. Ragsdale's lapel.

Mrs. Ragsdale accompanied Dr. Ragsdale at the reception.

During a short conversation with Dr. Ragsdale, I found that he was 21 years of age at the time his license to practice in Missouri was granted. There were 21 doctors practicing in Monroe County when he "hung out his shingle" in October 1907. Today there are three.

In asking what advice he would offer a physician beginning practice today, he gave the answer "Take good care of all your patients and they will take care of you."

It is interesting to note that besides caring for a large medical practice, Dr. Ragsdale has beeen quite active in many community affairs. On December 3, at the Annual Local Oddfellow's Banquet, he was presented a 50-year membership pin. He recently received a 25-year pin from the State Cancer Society. One important interest he has maintained for years has been in politics. His influence in county politics (Democrat) has been of considerable magnitude. He is a bank director, active in the American Legion and as a landowner keeps up on farming. For many years he has served as County Physician and Paris School Physician.

In reflecting on Dr. Ragsdale's activity program, I do not see much opportunity for boredom.

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'Cardilate' tablets shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.:
Nitroglycerin and Other Nitrites in the Treatment of
Angina Pectoris. Circulation (Jan.) 1958.

*'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored

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News

Joseph C. Edwards, M.D., Clayton, recently was installed as president of the Mississippi Valley Medical Society.

Leonard Fair, M.D., Chillicothe, recently was elected president of the Chillicothe Medical Staff, and Dr. **G. W. Carpenter**, second vice president.

The Doctors Hospital and Kneibert Clinic, Popular Bluff, announce the addition of Eugene T. Hansbrough, M.D., to their staff. Dr. Hansbrough, a surgeon at the Little Rock V.A. Hospital, will assume his new duties on March 1.

"Developments in Neurosurgery" was the subject of a talk given by **Robert W. Forsythe**, M.D., Kansas City, before the United Cerebral Palsy Association of Greater Kansas City, Inc., recently.

Physicians recently elected officers of the medical staff of the Missouri Methodist Hospital in St. Joseph were Drs. **Lucien W. Ide**, St. Joseph, president; **Claude S. Grant**, St. Joseph, first vice president; **Manning E. Grimes**, second vice president; and **P. T. Luckenbill**, Plattsburg, secretary-treasurer.

The American College of Physicians named the following physicians from the State of Missouri as Fellows of the College at the November meeting of the Board of Regents at the College headquarters in Philadelphia: Drs. **Raymond M. Charnas**, **Israel J. Flance**, **John R. Smith**, and **Herbert C. Sweet**, St. Louis. Those elected as associates were Drs. **William F. Kistner**, **John T. Lawton**, and **Jack Zuckner**, St. Louis; Drs. **George C. Bates**, **Albert I. Decker**, **Jack H. Hill** and **Robert H. Hodge**, Kansas City; and Dr. **Edward H. Fischer**, North Kansas City.

Under the proposed plan for consolidating three St. Joseph city health department medical posts, **Lawrence H. Pifer**, M.D., St. Joseph, acting police surgeon, would become assistant health officer.

Four Sedalia physicians, Drs. **T. J. Hopkins**, **Donald C. Proctor**, **C. G. Stauffacher** and **D. R. Edwards**, and two dentists, Drs. O. J. Durnell and M. E. Walters, will occupy a new building, upon its completion, on Limit, north of junction of Highways 50 and 65, the early part of the year.

Two Joplin physicians, Drs. **Nelson Butterworth** and **Eugene Hamilton**, recently attended a postgraduate course in internal medicine at the University of Kansas Medical Center in Kansas City, Kansas. Emphasis was given to the diagnosis and treatment of influenza, pneumonia and diseases of the blood and of the heart.

M. V. Malinoski, M.D., a staff member of the Poplar Bluff V.A. Hospital, recently was elected to active Fellowship in the American Academy of Ophthalmology and Otolaryngology at the society's annual meeting in Chicago.

James Barrett Brown, M.D., St. Louis, has been elected president of the Western Surgical Association.

Newly elected officers of the St. Francis Hospital, Maryville, are Drs. **W. R. Jackson**, chief of staff; **E. D. Imes**, assistant chief of staff; and **G. R. Wempe**, secretary. Dr. Jackson succeeds Dr. **H. C. Bauman.**

Speaking before the St. Louis Diabetes Association recently was **J. Earl Smith**, M.D., St. Louis City Health Commissioner. Dr. Smith said that persons past the age of 40 who are overweight and have a history of diabetes should be anxious to be examined for the disease.

Carl E. Rice, M.D., Hillsboro, recently spoke before the Crystal City-Festus Lions Club on the anti-polio program. Dr. Rice is the Jefferson County health director.

H. A. Klein, M.D., St. Louis, recently was elected president of the medical staff of Christian Hospital. Other officers are Dr. **O. E. Tjoflat**, vice president, and Dr. **S. E. Pawol**, secretary, both of St. Louis.

A Paris physician, **George M. Ragsdale**, M.D., recently was honored by the Paris IOOF lodge and received a 50-year pin in recognition of his long service.

Recently elected officers of the Queen of the World Hospital staff of Kansas City are **Carl Peterson**, M.D., president; **Emery Calovich**, M.D., vice president; and **Bruce McDonald**, M.D., secretary-treasurer.

Rosemary M. Larkin, M.D., who is associated with the Public Health Service District Office in Washington, Missouri, recently spoke before the St. Charles Business and Professional Women's Club.

St. Louis physicians installed recently as officers of the St. Louis Academy of General Practice are Drs. **Walter C. Gray**, president; **Charles A. Molden**, president-elect; **Eugene W. Hall**, vice president; **Eugene V. Henschel**, secretary; and **V. E. Michael**, treasurer. New board members are Drs. **John M. Collins**, **Robert G. Hughes** and **L. C. Welsh.**

Elected chief of the medical staff at the Ray County Memorial Hospital, Richmond, was **M. C. Johnson**, M.D., who succeeds **E. E. Gay**, M.D., Dr. **George Davault** was elected vice chief of staff and Dr. **Thomas B. Cook** was re-elected secretary-treasurer.

STOP respiratory congestion orally

relief in minutes . . lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

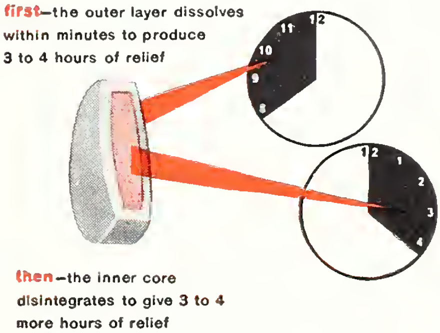
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: 1 tablet in the morning, afternoon, and in the evening if needed.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours—provides "around-the-clock" freedom from congestion on just three tablets a day



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the inner core disintegrates to give 3 to 4 more hours of relief

Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

Triaminic® *"timed-release" tablets*

STOP *running noses . . . and open stuffed noses orally*

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BALTIMORE

The Bonne Terre Rotary Club recently heard one of the community's eldest and most respected citizens speak on his early days of medical practice. Making one of his few public appearances during his 57½ years of medical practice, **Albert L. Evans**, M.D., related to the group some of the problems in the practice of medicine. He spoke of the community's smallpox epidemic in 1901 and also told of the serious flu epidemic which hit the country in 1916-18. Dr. Evans has delivered 2,000 babies during his many years of practice. The 86-year-old doctor is still in active practice, and not too many years ago Dr. Evans was an avid golf fan. Believing golf to be good exercise, he played the year round. When there was snow on the ground, he painted the golf balls red. He still admonishes: "Golf is a game that can cure anything but cancer and advanced tuberculosis."

Marvin W. Smith, Civil Defense Director, has announced there are to be located in the state thirty-six 200-bed Emergency Hospitals. These 200-bed Emergency Hospitals, cost of which will be borne by the Federal Government, will be stored in areas where they could immediately be put into operation in an emergency. At present there are hospital units located at Wright City, Joplin, Springfield, Rolla, and another on loan to the State Adjutant General's Department for training purposes. St. Clair, Maryville, and Cape Girardeau have requested the Federal Civil Defense Administration for storage of additional hospital units in those areas.

John F. Lowney, M.D., Columbia, recently spoke on "Diagnostic Procedures" to 55 members of the Columbia Chapter of the Missouri State Association of Licensed Practical Nurses.

Emma A. Thompson, M.D., Columbia, now retired, recently was featured in a special article appearing in the *Columbia Missourian* in which she recounted her 89 years, 60 of which were in the practice of medicine. Dr. Thompson upon graduating in 1892 from the Keokuk Medical School was married to O. N. Thompson, M.D., and they moved to Breckenridge in 1912. Until her husband's death in 1921, Dr. Thompson's role was that of homemaker, mother, and medical consultant to her husband. Following his death, she started a full-time practice in Breckenridge. Dr. Thompson has received many honors over the years, among them being the first woman president of the Grand River Medical Society, a recipient of the 50 years of service pin from the Missouri State Medical Association, and in 1949 she was selected as the Missouri Mother of the Year. Dr. Thompson believes that medicine is a most rewarding profession for women and that there is a definite need for more women doctors.

Wendell G. Scott, M.D., St. Louis, was elected a director of the American Cancer Society at its annual meeting in New York last fall.

A St. Louis physician, **Louis T. Byars**, M.D., was chosen president-elect of the American Society of Plastic and Reconstructive Surgery at the last annual meeting in San Francisco.

The medical staff, professional and non-professional personnel of Sisters' Hospital in St. Joseph are contributing to a memorial fund as a tribute to the late Dr. W. H. Minton. The memorial will be applied to the hospital's building fund.

Mr. Elmo H. Lund, formerly general assistant to the administrator of the Latter Day Saints Hospital, Salt Lake City, Utah, has accepted the post as administrator of the Ellis Fischel State Cancer Hospital, Columbia. Mr. Lund, who assumed his new duties on January 6, will become the first full-time administrator of the hospital since it opened in 1940. **C. W. Meinershagen**, M.D., Division of Health, Jefferson City, had been serving as acting administrator of the cancer hospital.

C. Laurence Johnson, M.D., Kansas City, was elected president of the medical staff at Trinity Lutheran Hospital in Kansas City, succeeding **Herbert H. Shuey**, M.D. Also elected were **Berneil W. Andrews**, M.D., vice president; and **Robert H. Hodge**, M.D., secretary-treasurer, both of Kansas City.

George W. Blankenship, M.D., Anderson, recently joined the staff of Sale Memorial Hospital and Clinic in Neosho.

J. Will Fleming, M.D., Moberly, has been named to the American College of Chest Physicians. His fellowship certificate is to be presented at the twenty-fourth annual convocation of the college June 18-22 in San Francisco.

The incoming staff officers of Sisters' Hospital in St. Joseph are Drs. **H. C. Willumsen**, president; **Allen I. Herman**, president-elect; and **R. V. Riddell**, secretary-treasurer. The outgoing staff officers are Drs. **H. Ewing Wachter**, president; and **R. W. Weed**, secretary-treasurer.

SURGICAL SOCIETY TO SPONSOR GUEST SPEAKER

Rudolph Noer, M.D., Louisville, professor of surgery in the University of Louisville Medical School, will be sponsored on the program of the Annual Session of the Association by the Missouri State Surgical Society. The Society will hold a formative meeting on Monday, April 14, at which time a constitution will be ratified and officers elected. Dr. Noer will be the guest of the society that evening and will speak on "Complications of Diverticular Diseases of the Colon."

when are tranquilizers indicated in pediatrics ?

Some doctors have questioned the use of tranquilizers in children. They feel, and rightly so, that these drugs should not be used as palliatives to mask distressing symptoms, while etiological factors go uncorrected. But there are three situations in which even the most conservative physician would not hesitate to use tranquilizers:

1. When the usually well-adjusted child needs a buffer against temporary emotional stress, such as hospitalization.
2. When a child needs relief from an anxiety-reaction that is in turn anxiety-provoking, so as to pave the way for basic therapy.
3. When anxiety underlies or complicates somatic disease, as in asthma.

In such situations, tranquilizers are likely to be more effective and better tolerated than previously accepted therapy, such as barbiturates.

But the question arises: **which** tranquilizer is suitable for children?

Most of the physicians now using tranquilizers in pediatric practice have found the answer to be ATARAX, confirming the conclusions of repeated clinical studies.

ATARAX is effective in a wide range of pediatric indications.
ATARAX has produced a "striking response" in a wide range of hyperemotive states.* In a study of 126 children, "the calming effect of hydroxyzine (ATARAX) was remarkable" in 90%.* Among the conditions that are improved with ATARAX are tics, nervous vomiting, stuttering, temper tantrums, disciplinary problems, crying spasms, nightmares, incontinence, hyperkinesia, etc.*

ATARAX is well tolerated even by children.
"ATARAX appears to be the safest of the mild tranquilizers. Troublesome side effects have not been reported. . . ."*

ATARAX offers two pediatric dosage forms.
ATARAX Syrup is especially designed for acceptability by medicine-shy youngsters. A small 10 mg. tablet is also available. In either case, you will get a rapid, uncomplicated response. Why not, for the next four weeks, prescribe ATARAX for **your** hyperemotive pediatric patients. See whether you, too, don't find it eminently suitable.

*Documentation on request

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in any
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for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

MISSOURI STATE MEDICAL ASSOCIATION

The 100th Annual Session of the Missouri State Medical Association will be held at the Sheraton-Jefferson Hotel, St. Louis, April 13, 14, 15, 16, 1958.

PROGRAM

Monday, April 14, 1958

9:00 a.m. Motion pictures.
10:00 a.m. Instruction Courses. (Attendance limited to 25 and Courses repeated at 11:30 a.m.)

Bloody and Purulent Vaginal Discharges, M.D. Bonebrake, M.D., Springfield.
The Dizzy Patient, Walter L. Moore, M.D., Clayton.
The Traumatic Abdomen, Heinz Haffner, M.D., St. Louis.
Head Injuries at Birth, James P. King, M.D., St. Louis.
Peripheral Vascular Disease, Robert A. Jordan, M.D., Kansas City, Kansas.
The Burned Hand, F. X. Paletta, M.D., St. Louis.

11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Instruction Courses. (Courses given at 10:00 a.m. repeated with attendance limited to 25.)
12:30 p.m. Intermission to View Exhibits and for Lunch.
2:00 p.m. Intestinal Obstruction: Early Diagnosis and Management, Rudolph Noer, M.D., Louisville, Kentucky.
2:30 p.m. Medicare, Paul I. Robinson, Major General, M.C., Washington, D. C.
3:00 p.m. Intermission to View Exhibits.
3:30 p.m. Clinical Pathologic Conference.
Moderator: Joseph E. Flynn, M.D., Columbia.

Tuesday, April 15, 1958

9:00 a.m. Motion pictures.
10:00 a.m. Instruction Courses. (Attendance limited to 25 and Courses repeated at 11:30 a.m.)

Management of Upper Gastrointestinal Hemorrhage, Richard Sterkel, M.D., St. Louis.
Oral Hypoglycemic Agents, Sol Sherry, M.D., St. Louis.
Fractures of the Femur, Richard T. Odell, M.D., St. Louis.
Tendon Repair, John H. Gaskins, M.D., Kansas City.
Use, Hazards and Abuse of Antibiotics, M. Kenton King, M.D., St. Louis.
Present Status of Steroid Therapy, C. Stewart Gillmor, M.D., Kansas City.

11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Instruction Courses. (Courses given at 10:00 a.m. repeated with attendance limited to 25.)
12:30 p.m. Intermission to View Exhibits and for Lunch.
2:00 p.m. The Management of a Patient With a Thyroid Nodule, Frank F. Allbritten, Jr., M.D., Kansas City, Kansas.
2:30 p.m. Farmer's Lung, Helen A. Dickie, M.D., Madison, Wisconsin.
3:00 p.m. Intermission to View Exhibits.
4:00 p.m. Grand Rounds.
Moderator: Paul Murphy, M.D., St. Louis.
Panelists: Frank F. Allbritten, Jr.. M. D., Kansas City, Kansas.
Helen A. Dickie, M.D., Madison, Wisconsin.
Glenn O. Turner, M.D., Springfield.
7:30 p.m. Annual Banquet. World Medicine and Its Influence for Peace, Gunnar Gunderson, M.D., La Crosse, Wisconsin.

Wednesday, April 16, 1958

9:30 a.m. Civil Defense.
10:00 a.m. Panel: The Use of Insulin in Diabetes.
10:45 a.m. Intermission to View Exhibits.
11:15 a.m. Symposium on Exfoliative Cytology.
Indications for and Principles of Exfoliative Cytology, Claude K. Leeper, M.D., Columbia.
Procedure, Omer E. Hagebusch, M.D., St. Louis.
Sources of Error, Frederick C. Coller, M.D., Springfield.
Correlation of Smear Findings With Biopsy Study and Recommended Management, Victor B. Buhler, M.D., Kansas City.
Training Cytotechnicians, Joseph E. Flynn, M.D., Columbia.

11:15 a.m. Panel: Diseases of the Heart.

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Buchanan County Medical Society

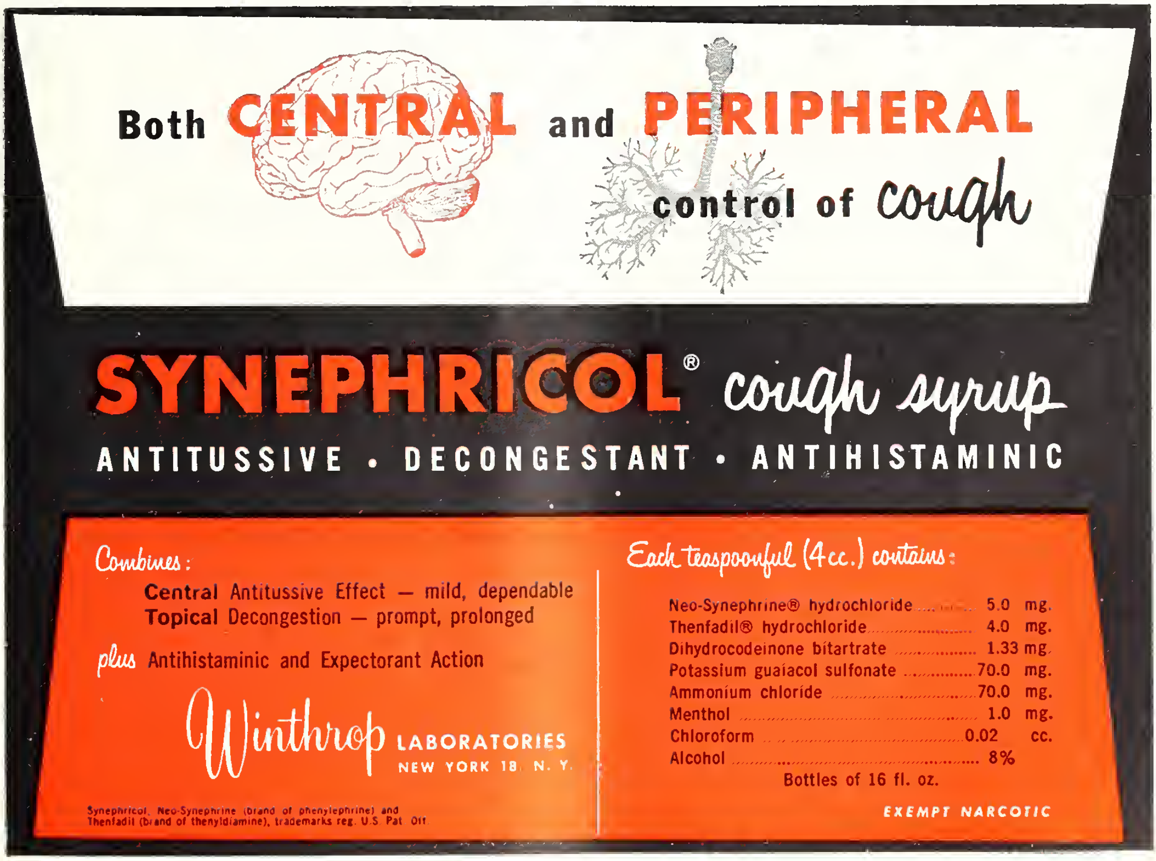
A dinner meeting of the Buchanan County Medical Society was held at the Robidoux Hotel, St. Joseph, on Wednesday night, December 4. This was the Society's regular election meeting and was attended by some 50 physicians. A social hour preceded dinner and the evening's special program.

The election of Officers for 1958 was the first order of business. Following this, those present were privileged to hear an address by Dr. Walter S. Sewell, Springfield, President of the Missouri State Medical Association. Dr. Sewell reviewed the organizational setup of the State Medical Association and expressed his hopes that many would attend the 1958 Annual Session of the State Association at the Sheraton-Jefferson Hotel in St. Louis, April 13-16, 1958.

Dr. Sewell took time to discuss a number of important problems to which members, as individual doctors as well as medical societies, need to give careful consideration. Dr. Sewell also attended the meeting

The speaker, Dr. Sewell, and the outgoing president, Dr. Smith, conversed.

Dinner preceded the program.



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EXEMPT NARCOTIC

of the Council which was held just prior to the beginning of the evening's festivities.

Donald M. Dowell, M.D., Chillicothe, Councilor, and Mr. Ray McIntyre, Field Secretary, also attended this meeting.

Officers for 1958 were elected, as follow: President-elect, George W. Forman, M.D.; Vice President, T. E. Potter, M.D.; Secretary, William B. Rost, M.D., and Treasurer, Robert W. Kieber, M.D.

Delegates to the Missouri State Medical Association are Drs. Joseph L. Fisher and Lucien W. Ide, with alternates, Drs. John N. Martin and Carl K. Ness.

The incoming President for 1958 is Allen I. Herman, M.D.

William B. Rose, M.D., *Secretary*

Clay County Medical Society

The Clay County Medical Society and Auxiliary met for dinner at Cascone's restaurant in North Kansas City, Tuesday evening, November 26, 1957. Following dinner, the ladies adjourned to the home of Dr. and Mrs. Franklin Werner for their meeting and program on Traffic Safety.

The clinical program was given for the Society by Dr. Clark L. Henry, thoracic surgeon from Kansas City, who spoke on "Neoplasms of the Chest Cavity," both intra and extra pulmonary. He gave some practical tips on diagnosis and expressed his opinion that heavy cigarette smoking is a causative factor in the increase of incidence to lung cancer.

During the business session, election of officers for 1958 was held. The following officers were elected unanimously: Drs. James E. McCormick, North Kansas City, President; Reinhardt D. Dwyer, North Kansas City, Vice President; Robert H. Dunham, North Kansas City, Secretary-Treasurer. Dr. Glenn W. Hendren, Liberty, will replace Dr. Arch E. Spelman of Smithville on the Board of Censors. Mr. E. W. Holzapfel, Liberty, will continue as Executive Secretary.

S. O. Schroeder, M.D., *Secretary*

Grand River Medical Society

The Grand River Medical Society met December 12, 1957, at the Strand Hotel in Chillicothe. This was the Christmas meeting. Including members, Auxiliary members, guests and visitors about 70 were present.

After the social hour, which was from 6:30 to 7:30, Dr. Robert W. Smith, Chairman of the Program Committee, asked Dr. Donald M. Dowell, Councilor, to present the President's Plaques to the six Past Presidents: Dr. Wm. Fuson, Dr. V. D. Vandiver, Dr. John H. Platz, Dr. Watkins A. Broyles, Dr. John R. Dixon and Dr. Frank R. Daley. Dr. Dowell made a few pertinent remarks concerning each of the Past Presidents and presented each of them with a beautiful plaque. All made nice responses. It was plainly evident that the Society has had fine leadership for six years and that these Past Presidents have set an excellent example for the young men that are to follow them in office.

Dr. Smith then announced that it was now time to present "This Is Your Life." He read a long telegram from Mr. Ralph Edwards stating that it was impossible for him to attend as planned. He suggested that Mrs. E. W. Allen take charge of the program. It was soon evident that Mrs. Allen was certainly qualified to take this part. Dr. E. A. Duffy, our secretary, was the surprised subject. Mrs. Allen read a brief description of his life and it came out that he had been a secretary of medical societies for over 50 years. Dr. Duffy was presented with a beautiful plaque in token of his long and faithful service as a secretary. His wife was presented a corsage and a toy doctor's bag. After this there were songs and dancing with Mrs. Ralph Bohnsack at the piano. Later a fine turkey dinner was served. The hall and tables were beautifully decorated with Christmas decorations and candles. Dr. Dowell, Councilor, was presented a large bouquet. Also other gifts were exchanged. This was indeed a most enjoyable meeting.

Dr. Duffy, accompanied by Mrs. Duffy, displays plaque.

Society meetings are well attended.

E. A. Duffy, M.D., *Secretary*

Nodaway-Atchinson-Gentry-Worth Counties Medical Society

A dinner meeting of the Nodaway-Atchinson-Gentry-Worth Society and its Woman's Auxiliary was held in the private dining room of Armstrong's Cafe, Maryville, on Tuesday evening, December 3, 1957. The evening festivities began with a social hour, followed by a bountiful dinner. The auxiliary members then retired to a separate meeting room while the doctors held a short business meeting which included the election of officers for 1958.

The featured speaker was then introduced, namely,

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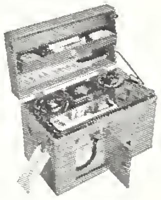

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Dr. Sewell was the speaker.

W. S. Sewell, M.D., Springfield, President of the Missouri State Medical Association. Dr. Sewell discussed a number of pertinent problems with which all are concerned. He also briefly discussed the organizational setup of the Missouri State Medical Association and requested that as many as possible attend the State Association meeting in St. Louis, April 13-16, 1958. He indicated that a number of important matters would be discussed in the House of Delegates and that that was the place to make views known on matters concerning organized medicine in this state.

Mr. Ray McIntyre, Field Secretary of the Association, accompanied Dr. Sewell to the meeting.

The total attendance for the evening's session was 35.

Charles D. Humberd, M.D., *Secretary*

Platte County Medical Society

A meeting of the Platte County Medical Society was held in Platte City on Wednesday evening, November 27. Mr. Charles of the County Health Department presented a scientific film from the American Heart Association on "Heart Disease and Interpretation of Electrocardiograms."

Election of officers for the year 1958 was as follows: Drs. H. Graham Parker, Platte City, President, and H. C. Thurman, Parkville, Secretary-Treasurer.

Those present for the meeting were: Drs. L. C. Calvert, Weston; S. L. Durham, Dearborn; H. Graham Parker and Charles Blackwell, Platte City; John A. Robinson, Edgerton; E. Jennings, Riverside; H. C. Thurman, Parkville; and Mr. Charles of the County Health Department.

H. D. Thurman, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Societies

The Chariton-Macon-Monroe-Randolph County Medical Society entertained wives and other guests at their annual Christmas dinner meeting Thursday night, December 12, 1957, at the Merchants Hotel in Moberly.

A special feature on the evening program included the Mojuco Singers of Moberly Junior College, directed by Mrs. Claudine Triplett, who sang several Christmas numbers.

The guest speaker of the evening was Mr. S. W. Fordyce, Project Engineer in the Applied Research Lab, Electronics Division, Emerson Electric Company, St. Louis. Mr. Fordyce gave an interesting discussion on the subject, "A Comparison of the Problems of Launching a Long Range Ballistic Missile and an Earth Satellite." He discussed numerous technical aspects of the current Satellite Missile race, using illustrations and charts for clarification. He said that generally speaking, American scientists were more optimistic now that it appears more money will be made available for rocket research and development.

Dr. Dan Stuart, Brunswick, the outgoing President, presided at the meeting. Dr. W. D. Chute, Moberly, takes over as President for 1958.

Robert Young, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, December 16, 1957, at 7:00 o'clock at the Pilot Lounge, Air Park Motel, Mexico, Missouri. The wives and members of the Woman's Auxiliary were guests.

A cocktail hour preceded a delicious meal. The tables and room were decorated with Christmas greenery and decorations.

At a short business meeting the following were elected officers for 1958: President, Leonard Davis, M.D., Mexico; Vice President, Charles Garcia, M.D., Mexico; Secretary-Treasurer, Harold Lankford, M.D., Mexico; Delegate, Harry F. O'Brien, M.D., Mexico, and Alternate, Glen P. Kallenbach, M.D., Mexico.

The program for the evening was given by Mrs. Mary Parrish, Vandalia, who spoke on her recent trip to Soviet Russia and Germany. She illustrated her travelogue with colored slides. After this interesting and informative talk, a short question and answer period followed.

As there was no further business, the meeting adjourned at 11:00 o'clock.

Lawrence K. Epple, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

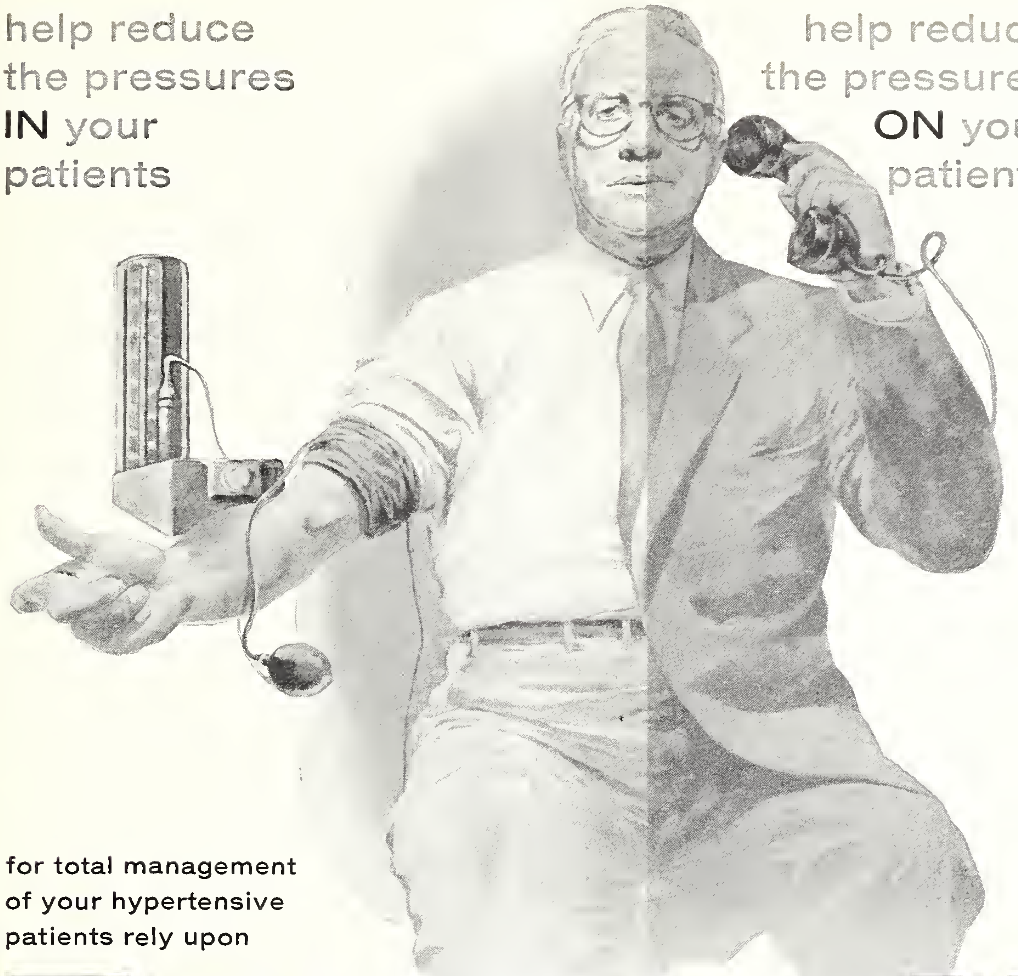
C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society was held at the Inn Hotel, Butler, on Thursday night, December 12. Doctors' wives and office secretaries and assistants were guests on this occasion. There was no scientific program presented.

Officers were elected for 1958 as follows: President, B. O. Hartwell, M.D., Drexel; Vice President, John Cooper, M.D., Butler, and Secretary-Treasurer, Jack Moody, M.D., Harrisonville.

The Society voted approval of the formation of a medical assistants association for the area. The medical



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Raudixin provides gradual, sustained lowering of blood pressure in hypertensive patients, as well as a mild bradycardia. Hence, the work load of the heart is reduced.

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Corrin, K. M.: Am. Pract. & Dig. Treatment 8:721 (May) 1957.

Tranquilizing Raudixin helps relax the anxious hypertensive patient so that he is better able to cope with external pressures without being overwhelmed by them. By reducing these anxieties and tensions, Raudixin helps break the mental tension —hypertension cycle.

Dosage: Two 100 mg. tablets once daily; may be adjusted within range of 50 to 300 mg. *Supply:* 50 and 100 mg. tablets. Bottles of 100, 1000 and 5000.

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assistants who were present at the meeting, following dinner, retired to a separate room where they discussed organizational plans for a local association. No definite organization was set up but they plan to have similar meetings for the purpose of establishing their local association.

Robert L. Magee, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The December meeting of the Ozarks Medical Society was held on December 10 at Mount Vernon with a dinner at the State Sanatorium followed by a business and scientific meeting in the staff room.

The Women's Auxiliary was entertained at the new home of Mrs. Kenneth Glover.

The scientific program, furnished by the Missouri Academy of General Practice, presented Dr. Grafton Smith and Dr. Fred Simpson from the faculty of the University of Missouri Medical School. Dr. Smith spoke on "Significance and Treatment of Rectal Bleeding," and Dr. Simpson discussed "The Child That Coughs." This program was well received and enjoyed by everyone present.

The Society voted Dr. Harry T. Evans of Branson, Missouri to Honorary membership.

Election of officers for 1958 resulted as follows: President, A. P. Capetti, Aurora; Vice President, L. T. Taylor, Neosho, and Secretary-Treasurer, A. J. Graves, Mount Vernon.

Delegates were elected as follow:

Barry County, Mary Newman, M.D., Cassville, delegate, and Robert Donley, M.D., Monett, alternate.

Stone County, Fred Wommack, M.D., Crane, delegate, with no alternate.

Lawrence County, Kenneth Glover, M.D., Mount Vernon, delegate, and A. J. C. McCallum, M.D., Aurora, alternate.

Taney County, Jesse Threadgill, M.D., Forsyth, delegate, and J. D. Bennett, M.D., Branson, alternate.

Christian County, Stanley Roper, M.D., Ozark, delegate, with no alternate.

Newton County, M. C. Bowman, M.D., Neosho, delegate, and George Blankenship, M.D., Anderson, alternate.

McDonald County, J. J. Royce, M.D., Noel, delegate, with no alternate.

The next meeting of the Society will be January 14 at the Legion Hall in Monett.

A. J. Grayes, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner Wednesday night, December 4, 1957, at the City View Cafe in Mountain Grove with members and visitors present as follows: Drs. R. W. Denney, S. W. Connor and A. C. Ames, Mountain Grove; J. L. Spears, Cabool; M. B. Perkins and H. W. Miller, Willow Springs; C. F. Callihan and M. L. Fowler, West Plains; D. E. Tiffany, Mountain View; A. T. Walker, Mammoth Spring; and Stanley Peterson and Thomas E. Cochran, Springfield, and the wives of several of them.

After dinner the ladies went home with Mrs. Connor for the evening and the meeting came to order and was turned over to the visiting speakers. Dr. Cochran made some remarks on "The Diagnosis of Heart Disease" and Dr. Peterson spoke on "The Treatment of Diabetes."

The minutes of the meeting at Willow Springs in September were read and approved. The election of officers for next year followed. Dr. M. L. Fowler, President-elect took over as President and Dr. J. L. Spears was chosen as President-elect. Dr. A. C. Ames was re-elected Secretary and Treasurer for another year. Dr. Rollin H. Smith was elected censor for three years.

The censors holding over are: M. L. Fowler, two years, and Garrett Hogg, Jr., one year. Delegates and alternates are as follow: Wright County, R. W. Denney, delegate, and S. W. Connor, alternate; Texas County, Garrett Hogg, Jr., delegate, and J. L. Spears, alternate; Howell County, C. F. Callihan, delegate, and Rollin H. Smith, alternate; Oregon County, A. T. Walker, delegate, and C. W. Cooper, alternate; Douglas County, M. C. Gentry, delegate, no alternate; Ozark County, Deborah Doan, delegate, no alternate.

The meeting adjourned to meet in Willow Springs, January 29, with Dr. Miller making local arrangements.

A. C. Ames, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Pemiscot County Medical Society

The meeting was called to order by President McCoy on December 12 in the home of Dr. P. J. Aquino in Caruthersville. Principal business was election of new officers.

Dr. Joseph Poff was nominated by Dr. Gordon Duckworth for the office of President. A motion was made by Dr. Aquino that nominations cease and that Dr. Poff be elected by acclamation. This was seconded and the motion was passed by majority.

Dr. John Duckworth was nominated by Dr. Shirey for the office of Secretary-Treasurer. A motion was made by Dr. Aquino that nominations cease and that Dr. Duckworth be elected by acclamation. This motion was seconded and passed by a majority.

Nominations for election of a new censor for the Society was then brought up and Dr. Morris was nominated by Dr. Lamb. A motion was made by Dr. P. J. Aquino that nominations cease and that Dr. Morris be elected by acclamation. This motion was passed by a majority.

Further business included the appointment of delegates to the House of Delegates for the Missouri State Medical Association. Dr. O. W. Cook was appointed delegate to this convention in St. Louis. Dr. Shirey was appointed as alternate delegate.

The outgoing President, Dr. McCoy suggested that an attempt be made to get a 40 minute lecture at the

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Marjoram

Lemon

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A few suggestions on how to give your patient a diet he can "stick-to"—

—and a glass of beer, with your consent for a morale-booster

The Low Sodium Diet

Here are some things your patient can do to season his Low Sodium Diet. Spices and herbs, lemon and lime, variously flavored vinegars and some pepper are all he needs.

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With these flavor tricks to add zest to his meals—and a glass of beer* now and then, at your discretion, your patient has a diet that's both good tasting and good for him.

*Sodium: 7 mg./100 gm., 17 mg./8 oz. glass (Average of American Beers)

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January meeting on office cytology and it was decided to try to have this lecture given.

Members present were: Drs. R. S. Smith, Arnold Shirey, John Duckworth, Gordon Duckworth, Jacob D. Caldwell, O. W. Cook, William O. Bryant, Levi Denton, Eugene Shanahan, Joseph Poff, P. J. Aquino, Clyde Morris, Woodrow Lamb, W. R. McCoy, and Andrew Painter, guest.

Having no further business at hand, the meeting was adjourned.

JOHN K. DUCKWORTH, M.D., *Secretary*

AMA Clinical Session

(Continued from page 145)

ships Between Medical Societies and Voluntary Health Agencies";

Strongly recommended that a completely adequate and competent medical department be established in the Civil Aeronautics Administration directly responsible to the CAA Administrator, and

Congratulated the General Electric Company for its medical television presentations on the subject of quackery.

OPENING SESSION

At the Tuesday opening session Rear Admiral B. W. Hogan, Surgeon General of the U. S. Navy, presented the Navy Meritorious Public Service Citation to Dr. Dwight H. Murray of Napa, Calif., immediate past president of the Association. Contributions to the American Medical Education Foundation, for financial aid to the nation's medical schools, were presented by four state medical societies: California, $143,043.25; Utah, $10,390; New Jersey, $10,000, and Arizona, $8,040. The Interstate Postgraduate Medical Association of North America gave $1,000, and the Illinois State Medical Society announced that it was adding $10,000 to the $170,450 presented at the New York meeting last June.

Missouri Medicine in Review

(Continued from page 106)

in the European Theater of Operations during World War II, has been named chief executive officer of the national organization of nonprofit Blue Cross hospital service plans and Blue Shield, formerly known as Associated Medical Care Plans. Missouri Medical Service, St. Louis, and Surgical Care, Kansas City, are members of Blue Shield.

James U. Scott, M.D., Harrisonville, was honored recently on his 76 birthday and culmination of fifty-three years of practice in Cass County.

Ira H. Lockwood, M.D., Kansas City, has been appointed one of four directors to serve on the board of the Radiological Society of North America.

NEW MEMBERS

Baker, Thomas J., M.D., University of Missouri, Columbia. Boone County Medical Society.

Bealer, Louis A., M.D., Centralia. Boone County Medical Society.

Blackwell, Charles B., M.D., Platte Medical Clinic, Platte City. Platte County Medical Society.

Burek, A. W., M.D., University of Missouri, Columbia. Boone County Medical Society.

Catanzaro, Rudolph E., M.D., 767 Wenneker Drive, St. Louis 24. St. Louis County Medical Society.

Davidson, John D., M.D., 600 Union Blvd., St. Louis 8. St. Louis Medical Society.

Forrester, James W., M.D., 5535 Delmar Blvd., St. Louis 12. St. Louis Medical Society.

Guze, Lucien B., M.D., Wilshire and Sawtelle, Los Angeles 25, California. St. Louis Medical Society.

Martt, Jack M., M.D., University of Missouri, Columbia. Boone County Medical Society.

Mestres, Hugh M., M.D., 3209 S. Grand Blvd., St. Louis 18. St. Louis Medical Society.

Perna, Vincent P., M.D., University of Missouri, Columbia. Boone County Medical Society.

Pickard, Clarence M., M.D., 1 West Blvd., North, Columbia. Boone County Medical Society.

DEATHS

Adams, Noah, M.D., Kansas City, a graduate of Barnes Medical College, St. Louis, 1899; honor member of Jackson County Medical Society; aged 83; died December 9.

Atherton, Mary J., M.D., Springfield, a graduate of Bennett Medical College, Chicago, 1913; honor member of Greene County Medical Society; aged 75; died October 15.

Black, William D., M.D., St. Louis, a graduate of Marion Sims College of Medicine, St. Louis, 1896; honor member of St. Louis Medical Society; aged 83; died December 2.

Kelly, Charles A., M.D., St. Louis, a graduate of St. Louis College of Physicians and Surgery, 1907; honor member of St. Louis Medical Society; aged 76; died December 27.

McGennis, Patrick, M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1914; honor member of St. Louis Medical Society; aged 81; died November 30.

Mueller, Ralph E., M.D., Kansas City, a graduate of University of Kansas School of Medicine, 1926; honor member Jackson County Medical Society; aged 59; died December 6.

Owens, Bert O., M.D., Miami, Florida, a graduate of Barnes Medical College, St. Louis, 1904; honor member St. Louis County Medical Society; aged 75; died November 26.

Rosenthal, Frances E., M.D., Joplin, a graduate of the University of Kansas School of Medicine, 1927; member Jasper County Medical Society; aged 62; died November 28.

Stein, Arthur W., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1911; member St. Louis Medical Society; aged 76; died October 2.

Williams, Robert F., M.D., Springfield, a graduate of Louisville Medical College, 1904; honor member Greene County Medical Society; aged 78; died December 5.

Hospital practice of infant feeding

Standard formulas for NEWBORNS

Breast feeding is the procedure of choice for the newborn. But it may need to be complemented with standard formulas given here.

The first feeding, 12 hours after birth, consists of a prelacteal solution of 5% Karo Syrup, one or two ounces, repeated at two-hour intervals. Breast feeding is started on the second day for five-minute intervals and the prelacteal feeding continued immediately thereafter and between nursings.

Formula feeding is given on the second day if breast feeding is denied. The small infant prefers the three-hour schedule and the large infant the four-hour schedule.

The initial formula is a low-caloric milk mixture, gradually increased in concentration over several day intervals according to tolerance. Standard formulas for whole cow's milk or evaporated milk modified with diluted Karo Syrup as shown here, constitute the dietary regimen for well newborns.

First formulas for newborns,
concentrated according to tolerance

Evaporated Milk Formulas: 3 oz. q 4h x 6 feedings

	FORMULA I 12.5 cals./oz.	FORMULA II 16 cals./oz.	FORMULA III 20 cals./oz.
Evap. Milk . .	4 oz.	5 oz.	6 oz.
Water	14 oz.	13 oz.	12 oz.
Karo Syrup . .	1/2 oz.	3/4 oz.	1 oz.

Whole Cow's Milk Formulas: 3 1/2 oz. q 4h x 6 feedings

	FORMULA I 11 cals./oz.	FORMULA II 11.5 cals./oz.	FORMULA III 13.5 cals./oz.
Whole Milk . .	8 oz.	9 oz.	10 oz.
Water	12 oz.	11 oz.	10 oz.
Karo Syrup . .	1/2 oz.	3/4 oz.	1 oz.

ADVANTAGES OF KARO IN INFANT FEEDING

Composition: Karo is a superior maltose-dextrin mixture because the dextrins are non-fermentable and the maltose is rapidly transformed into dextrose which requires no digestion.

Concentration: Volume for volume Karo furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo costs 1/5th as much as expensive milk modifiers and is available at all food stores.

Medical Division
CORN PRODUCTS REFINING COMPANY
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MINERS WANT FREE CHOICE BACK

Some miners have joined the physicians in objecting to restrictions of free choice in medical care imposed by the United Mine Workers of America Welfare and Retirement Fund on its beneficiaries.

A trustee of the welfare fund, however, maintained that union members still can get "adequate and necessary" medical care despite recent cuts in the fund's approved list of physicians and hospitals. The curtailment went into effect October 15.

About 9,000 miners in four southeastern Ohio counties have asked John L. Lewis, national president, for a change. As reported in the *Cleveland Plain Dealer:*

"Of 11 hospitals to which miners in the Cadiz, Ohio, area would find it convenient to go or take their families, only four are on the welfare fund's approved list. . . .

"Even when all the hospitals were approved they were quite crowded. Now, except in emergencies, a miner needing to get into a hospital has to wait anywhere from 10 days to three or four weeks for admission if he wants to have the fund pay the bill."

Miss Josephine Roche, a spokesman for the fund, said union members, of course, are free to visit other doctors but they will have to pay the bills themselves.

The welfare and retirement services provided by the fund, however, are fringe benefits provided for in contracts with the mine owners. For an individual miner to give them up is a real sacrifice—one that most of them can ill afford.

However, Miss Roche said that with a smaller list, union members get better quality medical service and the cost to the fund is reduced.

"It is best for them (the union members) and the trust fund not to have every Tom, Dick and Harry rendering service," she commented.

This stand by the fund was condemned by the A.M.A. House of Delegates at the recent clinical session in Philadelphia.

OUTBREAKS OF STAPHYLOCOCCAL DISEASE DESPITE DRUG ADVANCES

Several hospitals in the East have reported an increase in staphylococcal disease epidemics at the same time the A.M.A. warned that the so-called wonder drugs have made doctors less careful about germ precaution measures in hospitals and operating rooms.

"There has been a relaxation of hospital and operating techniques during the latter years of the antibiotics era," Dr. H. Taylor Caswell of Philadelphia recently told the closing session of the 11th annual clinical meeting of the A.M.A.

He declared that certain strains of staphylococci germs have become resistant to most of the wonder drugs and that they present a serious problem in hospitalized patients.

"A return to the most strict hospital techniques (of sterilization) is essential. Unless this is done, successful control of infections in hospital patients with antibiotic resistant staphylococci is doomed to failure," Dr. Caswell added.

Almost at the same instant one of the epidemics was reported at Valley Hospital, Ridgewood, N. J. Actually it involved two separate outbreaks in the nursery in which six infants died.

In its effort to control the outbreaks, the hospital asked help from the New Jersey Department of Health, the New York City Health Department and the Communicable Disease Center of the USPHS.

The source finally was traced to a part-time worker in the nursery found to be a permanent carrier of the epidemic strain.

POLIO HAZARD STILL ACUTE

A shocking number of Americans still are unprotected against paralytic polio, Basil O'Connor, president of the National Foundation for Infantile Paralysis, reports.

"Only three out of five Americans in the susceptible age group under 40 have had one or more injections of Salk vaccine." according to revised Public Health Service estimates as of December. This means that 40 per cent are in just as much danger as if there had never been a Salk vaccine.

Thus despite the fact 1957 was a light polio year, there is no assurance we may not have epidemics and tragic crippling this year, O'Connor said.

Children under 20 have the best vaccination record because of the inoculation programs carried on in the schools. Some 48 million children have had one or more shots, but 15 million still have had none.

In contrast, adults from 20 through 39 show a poor record. Only 16 million have had one or more shots, while 30 million still remain completely unvaccinated.

Of the 64 million persons under 40 who have had shots, only 34 million have had all three. Twenty-five million have had just two and the remaining 5 million only one.

Commenting on the impressive drop in reported polio cases last year, O'Connor cautioned that it is too early yet to draw scientific conclusions. While the Salk vaccine was an important factor, he said, scientists warn that 1957 might just have been a year of low polio virulence.

In the first 11 months of 1957, only 5,747 polio cases were reported in the entire nation. This is a decline of 62 per cent from the corresponding 1956 figure of 14,974. It is an even more impressive drop of 83 per cent from the 1952-56 five-year average of 34,321 cases for the first 11-month period.

He stressed that despite the impressive figures there still was much to be done.

"There are some 300,000 persons alive today who have suffered paralytic polio. Of these, it is estimated that 100,000 still may be helped to a fuller and more gainful life by modern surgical techniques and recent advances in the techniques of rehabilitation."

The National Foundation estimates its needs this year at $21,100,000 for patient care. It used $21,700,000 last year to bring medical care and rehabilitation to 57,800 patients. Ninety per cent, or 53,000, of this total were stricken in previous years.

"Thus we see that while new cases continue to drop, old cases still require millions of dollars, O'Connor commented. "Since its founding in 1938, the National Foundation has used a total of $279,400,000 to bring medical care and rehabilitation to 325,000 polio patients."

why wine in Cardiology?

For generations without number wine has been extolled as an "effective stimulant" and, therefore, valuable aid to treatment in various types of cardiovascular disease. It was this peculiar property, no doubt, which prompted the poet, Salerno, some 800 years ago to write—"Sound wine revives in age the heart of youth."

Now, as a result of modern research, we are obtaining concrete evidence of the favorable physiologic action of wine to lend support to the empiricism of ancient usage.

Both brandy and wine in moderate quantities have been found to substantially increase the pulse rate and step up the stroke volume of the heart.

Wine has been found to aid drug therapy in relieving the pain of angina pectoris and obliterative vascular disease.

Moreover, aside from the purely hypotensive actions of wine, its unquestionable euphoric effects help counter the depression, apprehension and anxiety so frequently present in sufferers from heart and coronary disorders.

The beneficial actions of wine appear to transcend those of more concentrated alcoholic beverages—valuable cardiotonic properties having been attributed to the aliphatic aldehydes and other nonalcoholic compounds recently isolated from certain wines and grape varieties.

It goes without saying that the use of alcohol, even in the form of wine, is contraindicated in hypertension accompanied by certain types of renal disease.

Rx

For a discussion of the many modern Rx uses for wine, write for the brochure, "*Uses of Wine in Medical Practice*" to Wine Advisory Board, 717 Market Street, San Franciscio 3, California.

NEW THOUGHT ON DOPE ADDICTS

The highly emotional and much publicized problem of dope addiction received a calming influence in a recent issue of the *Journal of the American Medical Association.*

An editorial in the *St. Louis Post-Dispatch* tells the story. The editorial:

The American Medical Association's report on dope addiction should prove valuable in putting this highly charged subject back into perspective. Two years' study by the association's Council on Mental Health has gone into its preparation. The council now presents its studied conclusions that addiction is neither as widespread nor as vicious as the public and most policemen apparently believe. It frowns on the punishment of addicts.

There has been an epidemic of hysterical legislation on the dope traffic in the last two or three years. Some of it has been national. Some has been at the state level. Missouri is one of the states adversely affected, with new laws on our statute books that make drug addiction a felony, and a harsher schedule of punishments.

> (Editor's note: The death penalty can be imposed for sales to minors.)

This hysteria has been provoked by sensationalized accounts of dope addiction and its role in crime. The stringent new laws that have ensued have enabled emotionally overcharged persons to vent their anger, but done less than nothing to deal with the dope problem. Actually they are likely to make it worse, for experience has shown that too harsh laws cannot be well enforced and are apt to miss the big offenders entirely while concentrating on small fry.

The dope problem needs not the most violent anger, but the calmest thought. If the report by the A.M.A. council can exert a sedative effect on the overwrought response that has been given to date, perhaps more realistic legislation will result. There may also result an attitude among the police and the courts that narcotic addicts should be treated as what they are—mentally ill individuals.

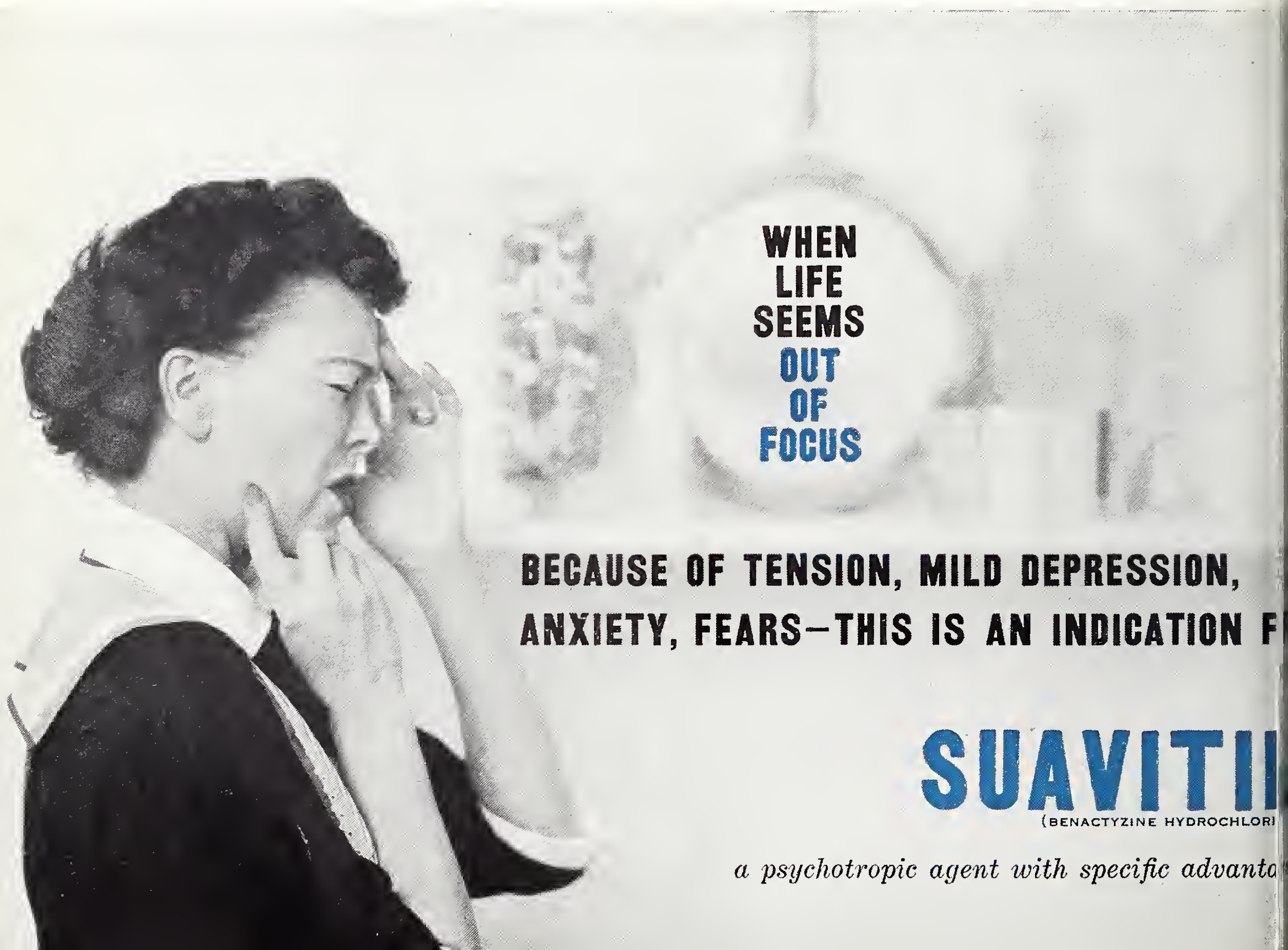
WORLD MEDICAL REPORT SOON

The First Decade Report of The World Medical Association is expected to be available early this month. Copies can be obtained at $2 apiece from the New York Secretariat, 10 Columbus Circle, New York 19, N. Y.

The report is arranged to allow the addition of material to the various chapters that present the various fields of interest to the W.M.A.

The association is urging member associations to submit names and addresses of delegations to the 12th General Assembly by the 24th of this month. The Assembly will be held August 15-20 in Copenhagen, Denmark. For further information contact the Secretary General at the New York address.

The second edition of *World Medical Periodical* published by the association now is available at $6. It has 340 pages listing nearly 5,000 titles of medical periodicals with four special appendixes. Available through *British Medical Journal,* Tavistock Square, London W.C. 1, England.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From the Medical Schools

UNIVERSITY OF MISSOURI

Trips and Talks

Dr. Jerry W. Brown, assistant professor of anatomy, visited the University of Pittsburgh School of Medicine on December 11 and 12 to discuss with Dr. Tryphena Humphrey, professor of anatomy, the research program which Dr. Brown is carrying out in neuroanatomy. Dr. Brown then went to New York City where he attended the annual meeting of the Association for Research in Nervous and Mental Diseases on December 13 and 14 at the Hotel Roosevelt.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, was elected president of the Eastern Missouri Branch of the Society of American Bacteriologists at a meeting held in St. Louis on December 7. Appearing on the program of this meeting were the following members of the Microbiology Department: Dr. Herbert S. Goldberg, associate professor, who presented a research paper entitled "Mima-Herellea Like Organisms From Mice on Streptomycin Diet"; Dr. Michael H. Ivey, assistant professor, who presented the results of a preliminary survey for intestinal parasites in Central Missouri; and Dr. Robert Keller, assistant professor, who presented a paper entitled "Host-Parasite Relationships Using Bacteriophage." Dr. James T. Barrett, assistant professor, also attended the meeting. Approximately 50 professional bacteriologists attended the meeting which was followed by a tour of the Jewish Hospital Laboratories. On December 9 to 11, Dr. Engley attended a meeting of the Chemical Specialties Manufacturers Association held in Hollywood Beach, Florida. Approximately 900 of the profession attended this meeting where he spoke on "Gaseous Sterilization Methods." Dr. Engley also visited the University of Miami School of Medicine in Coral Gables and the University of Florida School of Medicine in Gainesville.

Dr. Garland H. Lang, instructor in obstetrics and gynecology, attended seminars on "Hypnosis in Obstetrics" held on December 13, 14, and 15 in St. Louis.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, represented the Boone County Medical Society on a television program on November 22, sponsored by the Business and Professional Women's Club of Columbia concerning Diabetes Detection Week. On November 23, Dr. Flynn, as Chairman of the Missouri State Medical Association Committee on Laboratory Medicine, and Dr. Claude K. Leeper, assistant professor of pathology, attended the Council meeting of the Missouri State Medical Association concerning plans for a state-wide educational program in exfoliative cytology.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, Dr. W. R. Hepner, Jr., associate professor, Dr. Clement E. Brooke, assistant professor, and Dr. Constantine S. Anast, assistant professor, all attended a meeting of the St. Louis Pediatric Society held in St. Louis on November 20. The doctors were invited to be the guests of the Society at a

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dinner meeting and were made honorary members of the St. Louis Pediatric Society.

On December 12, Dr. Brooke, Dr. Anast, Dr. Gerard Van Leeuwen and Dr. Paul Zee, assistant instructors and residents in pediatrics, all attended the meeting of the St. Louis Pediatric Society at which Dr. Eugene Lahey spoke on "Copper Metabolism."

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, spoke at a meeting sponsored by the Sigma Delta Epsilon for graduate women in research on the subject of "The Art of Radiology." Approximately 25 attended the meeting. Dr. Lodwick also spoke to the members of the University Club on December 13 at Reed Hall on the subject of "The Van de Graaff Generator." Approximately 20 attended this meeting. On November 17, Dr. Lodwick attended a meeting of the Radiological Society of North America in Chicago, where he gave an instructional course on bone tumors. Approximately 250 attended this meeting.

Dr. Theodore E. Keats, associate professor of radiology, attended the meeting of the Radiological Society of North America held from November 17 to 22 where he presented a paper on "Roentgen Patterns of Lung Tumors Related to Survival" written by Dr. Lodwick, Dr. Keats, and Dr. John P. Dorst.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, attended the Seventh Tri-annual Session of the Pan Pacific Surgical Association in Honolulu, Hawaii, from November 14 to 22. As a member of the Association, Dr. Stephenson presented a paper on "Facts and Fallacies of Cardiac Resuscitation" and participated in a panel on "Cardiac Surgery" with Dr. Charles Bailey, Dr. Julian Johnson, Dr. Frank Gerbode, and Dr. Ross Robertson. While in Hawaii, Dr. Stephenson spoke to a meeting of the University of Missouri Alumni Association of Honolulu and to the Junior Chamber of Commerce of Honolulu.

At the meeting of the Boone County Medical Society held on December 3 at the Daniel Boone Hotel in Columbia, Dr. Stephenson was elected President for the ensuing term. Other officers elected were Dr. LeRoy J. Miller, Vice President, and Dr. John Modlin, Secretary. On November 25, Dr. Stephenson visited the department of surgery of the U.C.L.A. School of Medicine.

Dr. Thomas J. Baker, assistant professor of surgery (plastic surgery), spoke at a meeting of the Missouri Farmers' Association Insurance Adjusters on November 15 on the topic "Plastic Surgery—Its Principles, Costs, and Results." Approximately 125 medical adjusters were present for the meeting.

Guests at the Medical Center

Dr. S. Arthur Localio, professor of surgery at New York University Postgraduate Medical School, was a guest of the Department of Surgery on December 13 and 14. During his stay, Dr. Localio conducted ward rounds and talked to the medical students on various problems encountered in abdominal surgery.

Gifts and Grants

Dr. Owen J. Koeppe, assistant professor of biochemistry, has been awarded a grant by the U. S. Public Health Service in the amount of $6,100 for the period January 1, 1958, to December 31, 1958. It will be used for research on "The Biosynthesis of Peptide Bonds Carnosine."

TAKE A LOOK AT
NEW DIMETAN
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ANTIHISTAMIN

A gift of $5,000 has been awarded to the School of Medicine by the Wyeth Laboratories of Philadelphia. This is an unrestricted gift to be dispersed at the discretion of Dean Roscoe L. Pullen.

New Appointments

Dr. Dale R. Sparks has been appointed assistant instructor and first year resident in medicine effective January 1, 1958. Dr. Sparks received his A.B. and B.S. in 1951 at Southwest Missouri State College, his B.S. in Medicine in 1953 from the University of Missouri, and his M.D. in 1955 from St. Louis University. He is currently Medical Officer in the U. S. Navy at Seattle, Wash.

Dr. Russell D. Shelden has been appointed clinical associate in anesthesiology effective January 1, 1958. Dr. Shelden received his A.B. in 1942 and B.S. in Medicine in 1947 from the University of Missouri and his M.D. in 1949 from Washington University. He is now in private practice in Kansas City, Mo.

Dr. Oral B. Crawford has been appointed clinical associate in anesthesiology effective January 1, 1958. Dr. Crawford received his A.B. and B.S. in 1943 from the University of Missouri and his M.D. in 1945 from Louisiana State University. He is now in private practice in Springfield.

Dr. Edward Lee Johnson has been appointed assistant instructor in surgery and first year resident effective July 1, 1958. Dr. Johnson is now interning at Bernalillo County Indian Hospital in Albuquerque, N. M. He received his B.S. in 1953 from Bethany College, Lindsborg, Kansas, and his M.D. from the University of Kansas Medical School in 1957.

Dr. Otis O. Moseley has been appointed assistant instructor in surgery and first year resident effective July 1, 1958. He is at present an intern at Bernalillo County Indian Hospital in Albuquerque, N. M. He received his A.B. in 1952 from Southwest Baptist College, his B.S. in Medicine in 1955 from the University of Missouri and his M.D. in 1957 from the University of Kansas School of Medicine.

Dr. William A. Dwyer, Jr. has been appointed instructor in surgery and fourth year resident in surgery effective April 15, 1958. He received his A.B. in 1951 from Princeton University and his M.D. in 1951 from New York University College of Medicine. He is now assistant resident in surgery at Bellevue Hospital in New York City.

WASHINGTON UNIVERSITY

Memorial Services

Memorial services for Dr. Gerty Theresa Cori, internationally noted biochemist and Nobel Prize winner who died October 26, were held December 15 in Graham Chapel on the Washington University campus. Dr. Cori and her husband, Dr. Carl Cori, joined the staff of Washington University School of Medicine in 1931, he as professor of pharmacology and she as a research assistant. At the time of her death she was professor of biochemistry. The Coris were awarded the 1947 Nobel Prize for their work in the field of carbohydrate metabolism involving the methods in which the body uses its fuel supply of starches and sugars. They shared the prize with Dr. Bernardo A. Houssay of Buenos Aires who came to St. Louis to participate in the memorial services. Other participants were:

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Dr. Helen K. Porter of London, England; Dr. Severo Ochoa of the New York University School of Medicine; the Rt. Rev. William Scarlett, retired bishop of the Episcopal Diocese of Missouri; and Chancellor Ethan A. H. Shepley of Washington University. The late Dr. Cori was the recipient of numerous honors. She won the Midwest Award of the American Chemical Society in 1946, the Squibb Award in Endocrinology in 1947, the Garvan Medal and the St. Louis Award in 1948, the Sugar Research Prize of the National Academy of Sciences in 1950 and the Borden Award that same year. The Women's National Press Club in 1948 singled her out as one of the outstanding women of the year. In 1952 Former President Truman named her to a national science board of the National Science Foundation. She held honorary degrees from Smith College, Yale University, Columbia University and the University of Rochester.

Gifts

Washington University School of Medicine has been awarded a $100,000 grant from the Kresge Foundation to aid in the construction of a new building in the medical center which will house the Washington University Clinics, research facilities and an auditorium. As previously announced, the major part of funds for the building were given by Mr. and Mrs. David P. Wohl and the Wohl Foundation. The new building will make possible the relocation and coordination of outpatient facilities which now are housed in the Washington University Clinics building on Euclid avenue. It is anticipated that construction will begin next spring. The building is expected to cost about $3,000,000, including equipment. A recent grant of $743,238 from the U. S. Department of Health, Education and Welfare will be used for construction of the research portion of the building. The new building in the Washington University Medical Center will adjoin the David P. Wohl, Jr. Memorial Hospital on the east and will match it in design.

Two grants were awarded recently by the National Science Foundation for research at Washington University Medical Center. Dr. Philipp Strittmatter, assistant professor of biological chemistry, received a $20,000 grant for study of characterization of mammalian cytochromes; and Dr. Roy R. Peterson, assistant professor of anatomy, was awarded $8,400 to work on "Cytology and Secretory Mechanisms in the Adenohypophysis."

A research grant of $2,500 has been awarded to Dr. George H. Bishop, professor emeritus of neurophysiology at Washington University School of Medicine, for study of nerve cell activity. The study is to determine the causes and treatment of schizophrenia.

Appointments, Elections

Dr. Elwyn James Anthony, London, England, has been appointed the first Blanche F. Ittleson professor of child psychiatry at Washington University School of Medicine. Dr. Anthony, who is senior lecturer in child psychiatry at the Institute of Psychiatry, London, will assume his new position September 1, 1958. The post is the first endowed professorship of child psychiatry in the United States. Dr. Anthony is widely known for his research in the study of sleep disturbances, family relationships, psychotic children and children's groups. Since 1952 Dr. Anthony has been in charge of the Child Research Unit, Institute of Psychiatry, London; honorary consultant physician, Maudsley and Bethlem Royal Hospitals; and lecturer in the psychology of the family, London School of Economics, University of London, the latter since 1953. The Ittleson Family Foundation was established 25 years ago. Mrs. Ittleson, for whom the endowed chair is named, is a former St. Louisan. She is the widow of Henry Ittleson, Sr., who founded the C.I.T. Financial Corporation (formerly the Commercial Credit and Investment Company) in St. Louis in 1908, now the nation's largest consumer and industrial financing firm with headquarters in New York City since 1915.

Dr. Bernard Becker, professor and chairman of the department of ophthalmology, was elected president of the Washington University Medical Society at a meeting December 4 at the medical center. Also elected were Dr. Mildred Trotter, professor of gross anatomy, vice president; and Dr. Jack Davies, associate professor of anatomy, secretary. New council members are Dr. William H. Daughaday, associate professor of medicine; Dr. Arthur Kornberg, professor and chairman of the department of microbiology; and Dr. Eli Robins, associate professor of psychiatry. The officers will serve a one year term.

Dr. Hallowell Davis, professor of physiology and research professor of otolaryngology at Washington University School of Medicine and director of research at Central Institute for the Deaf, has been appointed chairman of the Board of Scientific Counselors of the National Institute of Neurological Diseases and Blindness, Bethesda, Md. His appointment is for four years. The newly organized board, comprised of six scientists, will review and advise the institute on activities in various scientific fields. The institute is one of the National Institutes of Health of the United States Department of Health, Education and Welfare.

Dr. Joseph C. Edwards, instructor in clinical medicine at Washington University School of Medicine, has been elected and installed as president of the Mississippi Valley Medical Society.

SAINT LOUIS UNIVERSITY

Firmin Desloge Hospital has planned a series of special medical lectures during its twenty-fifth anniversary year, which began January 16. Many of the departments of the hospital have organized lectures which will feature authorities in the fields of internal medicine, neurology, obstetrics and gynecology, ophthalmology, orthopedics, pathology, pediatrics, psychiatry, radiology and surgery. An invitation to attend the series has been extended to members of the Missouri State Medical Association.

The first scientific session will be sponsored by the Department of Internal Medicine February 6 to 8. Dr. Robert J. Huebner, chief of viral and rickettsial diseases, National Institute of Health at Bethesda, Maryland, and Dr. R. Bruce Logue, associate professor of internal medicine, Emory University, Atlanta, Georgia, will be guest lecturers.

The Department of Obstetrics and Gynecology will hold a one-day symposium February 13. Six authorities in the field of cancer will participate in a program on "Cancer and the Pelvis." They are Dr. Herbert E. Schmitz, professor of obstetrics and gynecology, Loyola University School of Medicine, Chicago; Dr. Willis E. Brown, professor of obstetrics and gynecology, University of Arkansas School of Medicine, Little Rock; Dr. John L. McKelvey, professor of obstetrics and gynecology, University of Minnesota School of Medicine; Dr.

Franklin L. Payne, professor of obstetrics and gynecology, University of Pennsylvania School of Medicine, Philadelphia; Dr. Willard M. Allen, professor of obstetrics and gynecology, Washington University School of Medicine; Dr. Allan C. Barnes, Western Reserve University School of Medicine, Cleveland, and Dr. Joseph A. Hardy, Jr., professor of obstetrics and gynecology, Saint Louis University School of Medicine.

Other departments to hold sessions throughout the Jubilee year will be: Department of Ophthalmology, March 27; Department of Orthopedics, April 21; Department of Pathology, May 16; Department of Surgery, September 17; Department of Neurology and Psychiatry, September 8, and Department of Pediatrics, October 15-16. An inter-department program to be held November 19 will conclude the series of lectures.

Appointment

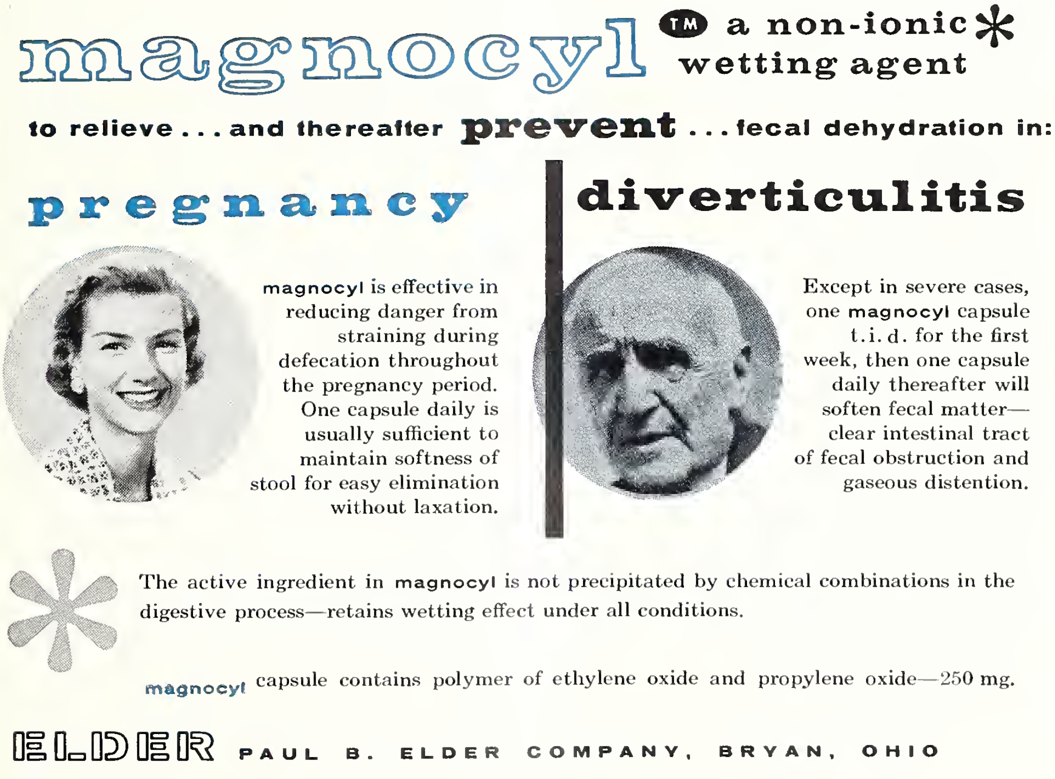
Dr. Elijah Adams, associate professor of pharmacology at the New York University College of Medicine, has been appointed professor of pharmacology and director of the department at the Saint Louis University School of Medicine. Dr. Adams joined the faculty of the New York University College of Medicine in 1955. Before that time, he had been with the National Institutes of Health in Bethesda, Maryland, for three years, where he was a member of the section on biochemical pharmacology, Institute of Arthritis and Metabolic Diseases. Dr. Adams was awarded his B.A. Degree from Johns Hopkins University in 1938 and his M.D. Degree from the University of Rochester, New York, in 1942. He interned in medicine at Strong Memorial Hospital for one year before serving in the Army of the United States from 1943 to 1946. Two of these years he was in the administration of the German prisoner-of-war hospital center in Marburg, Germany. From 1946 to 1949 Dr. Adams was at the Yale University School of Medicine where he served as an assistant in pathology and medicine and National Institutes of Health research fellow in physiology chemistry. He spent the following year as an American Cancer Society Fellow in the Department of Physiological Chemistry at the University of California School of Medicine in Los Angeles. From 1950 to 1952 he was a visiting investigator, Laboratory for the Study of Hereditary and Metabolic Disorders at the University of Utah.

Research Fellowship

Dr. Maurice Green, assistant professor of microbiology, has been awarded a five-year senior research fellowship of $62,209 by the United States Public Health Service for studies on the biochemistry of virus multiplication. The award will enable Dr. Green to devote more time to investigate work for which he was previously awarded a three-year grant from the United States Public Health Service.

Lectures

Two alumni returned to the School of Medicine as special lecturers during the month of December. Dr. M. Eugene Lahey, associate professor of pediatrics, University of Cincinnati, delivered the Ninth Annual Alphonse M. Schwitalla lecture at the School of Medicine on December 11. Dr. Lahey's lecture was titled "Copper Deficiency." The annual banquet honoring



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new members of the Alpha Omega Alpha honorary medical society followed the lecture. Dr. Don C. Weir, associate professor of clinical radiology, and Dr. James E. Lewis, Jr., associate professor of surgery, were taken into the honorary society. Medical students initiated were: James W. Barrow, John M. Cary, Norman D. Duley, Jr., Richard C. Hard, John R. Hogan, William J. Hennessy, Alan Kaye, Cornelius J. O'Connor, Vincent G. Palermo, John C. Schultz, Martin F. Stein, Wilma I. Winter and Reginald Chi Shing Ho.

Dr. Robert E. Olson, professor of biochemistry and nutrition, School of Public Health, University of Pittsburgh, delivered the thirteenth annual Hanau W. Loeb Lecture sponsored by the Phi Delta Epsilon medical fraternity. His topic was "Myocardial Metabolism in Health and Disease." Dr. Olson was awarded his Ph.D. in biochemistry from Saint Louis University in 1945.

TUBERCULOSIS ABSTRACT

A CHALLENGE

In 1947, the use of streptomycin in the treatment of tuberculosis gave a sudden lift to hopes for the eventual conquest of the disease. Since that time combinations with PAS and isoniazid have provided added effectiveness. Other drugs are being intensively studied in hospitals and sanatoria. This avenue of approach seems certain to improve.

When the surgical removal of the cavitated discharging, and therefore infective, portion of the diseased lung became possible, a wave of optimism struck not only the public but the medical profession as well. A feeling arose that we would find an early solution to the problem of eliminating tuberculosis. Such optimism is not justified. The attack is still from the wrong angle.

True, the known case, if properly treated, is now restored to the community as a contributor to the economy and not a distributor of infection. However, the process is still slow and painstaking and full of pitfalls for the unwary. Management if it is to be successful must be unwavering and uninterrupted and requires the utmost skill and training. The cooperation of the patient and the family is necessary. Treatment must be continued indefinitely after recovery or apparent arrest.

The family physician must be alert. He will be importuned to assume the care in the home of the active case. According to Dr. James E. Perkins, Managing Director of the National Tuberculosis Association, the cost of the average case of tuberculosis is about $15,000 including medical care, compensation, pensions, relief payments, and loss of wages. Few can bear such a burden without assistance. Nearly everyone wants to be cared for at home.

Few people are sufficiently informed to desire treatment in a sanatorium. Unless the physician is alert to the probable course of the disease and firm in his advocacy of sanatorium care, he may yield to entreaties and attempt home treatment with drugs. Soon the patient becomes aware of the expense involved. In time, he may assume that he has sufficiently recovered and abandon the treatment. This has occurred repeatedly. The physician is left helpless, and the patient is often hopeless. Many instances of the situation can be cited by anyone with experience in the field.

Tuberculosis is still a scourge despite modern drugs and excisional therapy.

Sanatorium care remains the best hope for the patient—and his family. Figures from Minneapolis and Hennepin County are cited to illustrate the exent of the problem.

In the sanatorium, the entire cost of long-term care is supplied except for the very small percentage of patients who can well afford such expense. In fact, the patient who is charged a token part pays less for sanatorium treatment than for home care. Infinitely more important are skill and specialized medical care by a staff alert by experience to the many pitfalls awaiting the unwary.

In the sanatorium, a rehabilitation program under skilled management is started immediately with education, occupational therapy, medical social service, and vocational guidance and placement, which is the *sine qua non* of a successful program of restoration. Such a program can be furnished only by an institution. Indefinite follow-up is needed to forestall the consequences of relapse.

However, the attack has just begun in spite of the mounting success in removing the patient with a known case of tuberculosis from his community as a source of infection and restoring him as a productive citizen to the community. While the death rate has already fallen, the incidence still remains little below that of ten years ago. Community-wide surveys, incomplete as they are, reveal shocking numbers of individuals in the infective stage who are unrestricted in the community and seeding the germs of the disease in ways which often we cannot as yet trace.

The 149 new active cases found in Minneapolis and Hennepin County in 1954 illustrate this point. Of these cases, 36 per cent were reported from physicians' offices and public clinics, and 22 per cent were hospital inpatients. Mobile-unit surveys and physical examinations with roentgenograms of apparently healthy people located 23 per cent. Follow-up of contacts of active cases accounted for 7 per cent; 2 per cent were found in death reports and were not previously reported. An additional 10 per cent of the cases had been diagnosed elsewhere.

The average attack rate in 1950 to 1954 by age and sex shows that men over 45 years of age comprise the group most likely to develop tuberculosis. Many of them are still supporting a family.

Issued by the National Tuberculosis Association.
By S. Marx White, M.D., Editorial, *Journal-Lancet*, January, 1957.

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The "dangerous age" for women is from 25 to 44, and for every woman who breaks down in this age period, there are almost twice as many men. In the occupational groups, new active case rates in 1954 were highest among the unemployed and next among food handlers and maids.

Routine roentgenographic surveys of all hospital admissions bring to light a significant number of cases. Sanatorium staffs also report a sequence that has not received sufficient attention from the general medical profession. Many cases appearing at first to be atypical, or so-called "virus" pneumonia, recover from the acute attack only to break down much later and prove the original infection to be of tuberculosis origin instead of "virus." The development is usually so insidious and symptomless that only frequent and systematic follow-up can detect this sequence before it becomes a cavitated source of illness and infection.

Conditions in sanatoria throughout the nation quite generally follow a pattern illustrated by the stage of disease on admission recorded in Minnesota's Glen Lake Sanatorium. Approximately 10 per cent only are incipient and usually nonspreaders. Fifty per cent are moderately advanced, and 40 per cent are definitely far advanced. Thus, nearly 90 per cent of those admitted are spreaders of the disease. The local conditions cited illustrate the fact that innumerable sources of infection are present in a community which prides itself on accomplishment in this field.

Tuberculosis exists throughout the known world and has existed since disease in man became known. The causative organism has been known for only a moment in human history. Our success in its suppression has just begun. There is an enormous amount of tuberculosis in countries in which health measures are still retarded.

When we turn to our own country, we learn through the National Tuberculosis Association that "if by magic we could eliminate today all the known tuberculosis cases, we would still have about 50,000,000 people in this country harboring live, virulent tubercle bacilli in their bodies." This seems incredible until we remember that, in the vast majority, the disorder is inactive. The impressive fact is the wide-spread silent character of the infection.

HERE WE REST OUR CASE. WE CONCLUDE:

1. Efforts to find the active spreader of infection need to be intensified. While greater search must be made among the ethnic, occupational, and age groups most heavily infected, all possible sources must be explored.

2. All known cases must be removed from situations in which they can infect others. Isolation provided by the sanatorium is the only assurance against such infection.

3. Treatment now available must be applied under competent management without prospect of interruption and with complete rehabilitation as an added objective. Such treatment means sanatorium care.

4. Research must be intensified. There must be no letdown in the provisions for sanatorium care. Adequate facilities must be provided for communities not so equipped.

Washington

(Continued from page 102)

better trained science teachers and encourage bright students to take up science and engineering.

One source within the department said pre-medical students would be eligible for scholarships under the new program, but with a 4-year time limit on the benefits. The students would have to finance most of their medical school education in some other way.

The administration also contemplates expanding several National Science Foundation grants and fellowship programs, including one open to medical school graduates. This is aimed toward medical research or careers on medical faculties.

The administration's plan to broaden the research facilities act to allow medical schools to receive matching grants for building classrooms still is pending.

The Public Health Service of the HEW has started a study of new "progressive care" experiments in hospitals. Under progressive care plans, patients are moved from intensive care to routine care and then to self-service care as their condition improves. Questionnaires have been sent out to 8,000 hospitals.

NEW A.M.A. GENERAL MANAGER

A realignment of executive duties at the American Medical Association went into effect January 1. Dr. George F. Lull took over the position of assistant to the president. Dr. F. J. L. Blasingame of Wharton, Texas, assumed responsibility for over-all administration with the title of general manager.

Dr. Blasingame has been active in medical affairs, both at the state and national levels, for many years. Since 1949, he has been a member of the A.M.A. Board of Trustees, and in 1955 he served as president of the Texas State Medical Association.

In his new job, Dr. Lull will relieve the president of many of the burdens of that office in addition to serving as secretary of the Association. He will act as a special ambassador of the medical profession in cities and towns throughout the country. Dr. Lull joined the A.M.A. staff in 1946 after serving 34 years in the Army. His last position before Army retirement was as deputy surgeon general.

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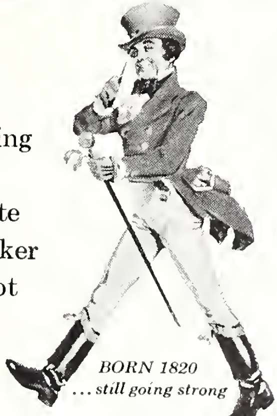

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Component Societies in Affiliation With the Missouri State Medical Association

County	District	President	Address	Secretary	Address
Andrew	1	V. R. Wilson	Rosendale	M. L. Holliday	Fillmore
Audrain	5	Leonard Davis	Mexico	Harold Lankford	Mexico
Barton-Dade	8	Thomas W. Carroll	Lamar	Herbert M. Arnold	Lamar
Benton	6	T. S. Reser	Cole Camp	James A. Logan	Warsaw
Boone	5	Hugh E. Stephenson	Columbia	John J. Modlin	Columbia
Buchanan	1	Allen I. Herman	St. Joseph	William B. Rost	St. Joseph
Butler-Ripley-Wayne	10	A. L. May	Poplar Bluff	Edward C. Cline	Poplar Bluff
Callaway	5	Thomas L. Johnson	Fulton	James E. Hill	Fulton
Camden	5	E. G. Claiborn	Camdenton		
Cape Girardeau	10	Hugh V. Ashley	Cape Girardeau	Gerald M. Hoxworth	Cape Girardeau
Carter-Shannon	9	H. D. Rollins	Winona		
Chariton-Macon-Monroe-Randolph	2	W. D. Chute	Moberly	Robert H. Young	Moberly
Clay	1	James E. McCormick	North Kansas City	Robert H. Dunham	North Kansas City
Clinton	1	W. B. Spaulding	Plattsburg	J. P. Mabrey	Plattsburg
Cole	5	Byron E. Watts	Jefferson City	E. R. Bohrer	Jefferson City
Cooper	5	William A. Abele	Boonville	Daikichi Hata	Boonville
Dallas-Hickory-Polk	8	Evelyn P. Griffin	Buffalo	George G. Robinson	Humansville
Dunklin	10	D. W. Croom	Malden	E. L. Spence	Kennett
Franklin-Gasconade-Warren	4	Frank G. Mays	Washington	William R. Richardson	Union
Grand River Medical Society (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Charles M. Grace	Chillicothe	Edgar A. Duffy	Trenton
Greene	8	Ronald F. Elkins	Springfield	G. Bruce Lemmon, Jr.	Springfield
Henry	6	Claude M. Thurber	Windsor	R. S. Hollingsworth	Clinton
Holt	1	F. E. Hogan	Mound City	D. C. Perry	Mound City
Howard	5	W. C. Allen	Glasgow	William A. Bloom	Fayette
Jackson	7	John H. Mayer, Jr.	Kansas City	Herbert H. Virden	Kansas City
Jasper	8	W. Russell Smith	Carthage	John W. Koehler	Joplin
Jefferson	4	Karl V. McKinstry	DeSoto	John F. Rutledge	Crystal City
Johnson	6	Charles M. Lederer	Warrensburg	Keith D. Jones	Warrensburg
Lafayette-Ray	6	J. S. Cope	Lexington	R. W. Riley	Lexington
Lewis-Clark-Scotland	2	J. R. Bridges	Kahoka	P. W. Jennings	Canton
Lincoln-St. Charles	4	E. J. Canty	St. Charles	Paul H. Rother	St. Charles
Marion-Ralls-Shelby	2	Sam T. Ellis	Hannibal	J. H. Walterscheid	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	James D. Butts	Rolla	M. K. Underwood	Rolla
Miller	5	W. L. Allee	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	10	Jack Mullen	Bonne Terre	Robert A. Huckstep	Farmington
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	Samuel J. Byland	Wellsville
Morgan	5	J. L. Washburn	Versailles	R. R. Lyle	Versailles
Nodaway-Atchison-Gentry-Worth	1	Robert Dunshee	Maryville	Charles D. Humberd	Barnard
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Spencer L. Freeman	Kirksville	G. R. Hudson	Kirksville
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	M. C. Bowman	Neosho	A. J. Graves	Mount Vernon
Pemiscot	10	Joseph H. Poff	Caruthersville	John K. Duckworth	Hayti
Perry	10	Stanley G. Legner	Perryville	A. E. McDermott	Perryville
Pettis	6	Carl Siegel	Sedalia	Robert Stewart	Sedalia
Pike	2	J. W. Middleton	Louisiana	Don E. Beckman	Clarksville
Platte	1	S. L. Durham	Dearborn	H. C. Thurman	Parkville
St. Louis City	3	A. W. Neilson	St. Louis	John P. Eberle	St. Louis
St. Louis	4	Emmett B. Drescher	St. Louis	Robert A. Mayer	St. Louis
Saline	6	Marvin E. Roehrs	Marshall	E. Lee McCorkle	Marshall
Semo County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Thomas C. McClure	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	Marvin L. Fowler	West Plains	A. C. Ames	Mountain Grove
Webster	8	C. R. Macdonnell	Marshfield	E. G. Beers	Seymour
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	B. O. Hartwell	Drexel	J. C. Moody	Harrisonville

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Dartal is useful whenever the physician wants to ameliorate psychic agitation, whether it is basic or secondary to a systemic condition.

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Specifically, the usefulness of Dartal has been established in psychoneuroses with emotional hyperactivity, in diseases with strong psychic overtones such as ulcerative colitis, peptic ulcer and in certain frank and senile psychoses.

Usual Dosage • In psychoneuroses with anxiety and tension states *one 5 mg. tablet t.i.d.*
• In psychotic conditions *one 10 mg. tablet t.i.d.*

WASHINGTON

Many eyes in Washington are turned toward Kentucky watching the efforts of a United Mine Workers Association's physician to join a local medical society. It is believed the Kentucky State Medical Association will uphold the Floyd County Medical Society in its refusal to accept him.

The doctor who has threatened court action is Dr. Frederick P. Zuspan, a salaried obstetrician on the staff of the union's McDowell (Ky.) Memorial Hospital.

The Department of Justice reportedly is following closely the situation which has elements of the famous A.M.A.-Group Health Association case of 1941. Public Health Service officials as well as Labor Department specialists also are known to be vitally interested.

In his appeal to the KSMA, Dr. Zuspan said refusal to approve his application constitutes a professional handicap and could delay or jeopardize his chances of obtaining board certification in his speciality.

He charges that his rejection is "no more than an economic weapon used to eliminate competition to the traditional mode of practice, in violation of the law against restraints and clearly outside the proper function of a medical society."

The KSMA's statement charges that the UMWA's hospital network is aimed at "total community medical care, controlled from Washington." It said this is being engineered by forbidding mine fund beneficiaries to use private hospitals in their own communities; coercing private physicians into line, and pocketing fees paid by hospital patients to the salaried doctors on their staffs.

Per diem costs in the miners' memorial hospitals are described, by the KSMA, as exorbitant. They also are criticized for refusing to accept charity cases, even DESTITUTE MINERS.

On Capitol Hill chances appeared brighter for the Jenkins-Keogh bill, or at least some version of it.

The persons appearing for it at the Congressional hearing made a convincing case for the tax-deferred pension measure. It was urged not only on basis of equity and fairness but as a career incentive that would encourage more young people to enter vocations of science and engineering. A.M.A. was among the various professional groups that was present in support of it.

A similar measure to provide tax relief for small independent businessmen and other self-employed also has been introduced in the Senate by Senator Sparkman (D., Ala.) and a majority of the Senate Small Business Committee. The number is S.B. 3194. The Jenkins-Keogh legislation is pending in the House Ways and Means Committee.

Senator Sparkman's measure while not as liberal in its deductions as the Jenkins-Keogh bill would be a step in the right direction and get the legislation on the books.

It would permit ANY individual not covered by or receiving payments from an employer's pension or stock bonus plan to defer income tax payments on money placed in a retirement fund for himself or his beneficiaries. Annual payments would be limited to 10 per cent of income (maximum of $1,000), except that an additional 1 per cent could be added for each year over 50.

The Forand bill to set up a FREE hospital-surgical care program for social security recipients probably will not receive any official help from the Department of Health, Education and Welfare —at least this year.

Charles Schottland, social security administrator, has reminded persons interested in the program that social security, contrary to popular concept, is a tax rather than an insurance program in the usual sense.

Statistics show that the program's expenditures are ahead of its receipts earlier than anticipated, which should give opponents of the Forand bill valuable ammunition.

A little friction may be developing between two of the veterans' associations on hospitalization for veterans.

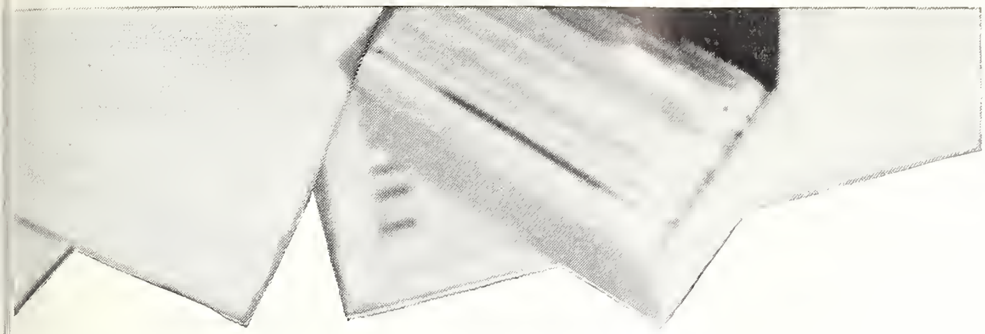
The Veterans of Foreign Wars has said there are "inadequacies" in President Eisenhower's budget for hospitalization and medical care for veterans, even though the total is somewhat higher than that for the current fiscal year. They proposed that outpatient treatment be provided for some non-service connected cases.

Disabled American Veterans, however, have asked for improved benefits for only one group of veterans—those with service-connected conditions.

The House has passed to the Senate a "humane slaughtering" of livestock bill. The bill would give the Secretary of Agriculture responsibility for establishing procedures that in his opinion are the "most humane possible." This means first making the animals "insensible to pain."

Other tax bills: Senator Smathers (D., Fla.) proposes in S.B. 3162 to allow a taxpayer to deduct from taxable income all money paid for tuition and fees, books and supplies, travel expenses and meals and lodging while attending a college. Benefits would apply to spouse or dependents as well as taxpayer.

H.R. 10394 by Representative Matthews (D., Fla.) would allow deduction of all medical expenses, including drugs. The present law only allows such expenses in excess of 3 per cent of adjusted gross income.



Gastric distress accompanying "predni-steroid" therapy is a definite clinical problem — well documented in a growing body of literature.

iew of the beneficial re-
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e feel that these measures
e employed prophylacti-
offset any gastrointestinal
ts."—Dordick, J. R. *et al.:*
te J. Med. 57:2049 (June
'.

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

General Practice Residencies Reach New High

Leaders of the American Academy of General Practice, in company with many outstanding medical educators, have been greatly preoccupied in recent years with the problem of adequately training the generalist, or family physician. In contrast to the considerable achievements in postgraduate education, little has been accomplished thus far at the undergraduate and internship level.

Consonant with its primary objective of constantly improving the standards of general practice, officers of the American Academy of General Practice have concentrated their efforts on the general practice residency programs.

More than 200 hospitals now offer approved general practice residency programs as a result of action taken by the Residency Review Committee for General Practice at their regular fall meeting in Philadelphia on December 4.

Formerly there were 188 hospitals offering 765 positions in approved general practice residencies, with more than 70 per cent of the positions filled. At this meeting the committee reviewed 53 programs, including 24 new ones applying for approval and 29 programs reinspected during the past six months.

Not all of the new programs met the requirements outlined in the "Essentials of an Approved General Practice Residency." Hospitals failing to meet requirements will have an opportunity to correct deficiencies and be reconsidered later.

The committee also held its annual election of officers. Louis F. Rittelmeyer, Jr., M.D., was named chairman, and Dr. Warde Allen, vice chairman. They will take office at the next meeting, scheduled for June 1958.

The Residency Review Committee for General Practice consists of three members from the AMA's Council on Medical Education and Hospitals and three from the Academy. In addition to Dr. Rittelmeyer, Academy members are Jesse D. Rising, M.D. (the present chairman), and William J. Shaw, M.D. Besides Dr. Allen, other council members are James M. Faulkner, M.D., and Andrew Bunten, M.D. Dr. Arthur N. Springall of the council staff functions as secretary.

Muse Committee

The first report of the Academy's ad hoc "MUSE Committee" (Minimum Uniform Standards of Education) urges that the Academy and the AMA Section on General Practice create a Board of General Medicine to examine and certify physicians in general medicine and surgery. The committee also believes that the one year general practice internship should be replaced by a two-year residency.

The MUSE Committee's preliminary report points out that a general practice specialty board could help establish educational standards and would encourage young physicians to take general practice residencies. It adds that medical school administrators want a certification program.

The ad hoc committee's report is preliminary only and is not an official statement of the Academy until it has been approved by the Board of Directors and the Congress of Delegates. This will be the most important single subject of discussion when the Congress of Delegates meets at the Tenth Annual Scientific Assembly next month.

The committee contends the one year internship has outlived its usefulness, having been replaced by the undergraduate clinical clerkship. A two year residency is called "educationally superior."

The Northwest Missouri Chapter of MAGP is cosponsoring with the University of Kansas School of Medicine a series of postgraduate programs in medicine and surgery on the third Tuesday of each month, beginning in November 1957, and continuing through May 1958. These sessions are held at the Moila Temple, St. Joseph and begin with dinner at 6:30 p.m. Officers for 1958 are Clifton Smith, M.D., St. Joseph, president; Claude S. Grant, M.D., St. Joseph, vice president, and John Mabrey, M.D., Plattsburg, secretary-treasurer.

The Tri-County (Franklin-Gasconade-Warren) Chapter of the MAGP is cosponsoring with the University of Missouri School of Medicine a postgraduate course on the second Tuesday of each month, begun in November 1957 and running through September 1958. Each program runs for two hours including the formal presentation and a discussion period. All sessions are held at the St. Francis Hospital in Washington.

On Sunday, June 15, the Southwest Missouri Chapter of MAGP, the Greene County Medical Society and Lederle Laboratories are cosponsoring a one day scientific symposium at the Kentwood Arms Hotel in Springfield. Six outstanding speakers from different sections of the United States will appear on the program. The session will begin at 10:00 a.m. and terminate at approximately 6:30 p.m. A free luncheon for doctors and their wives and an evening cocktail hour will be furnished by Lederle. Similar symposia have been presented in Kansas City and St. Louis cosponsored by the local Academy chapters and Lederle Laboratories.

(Continued on page 250)

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'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

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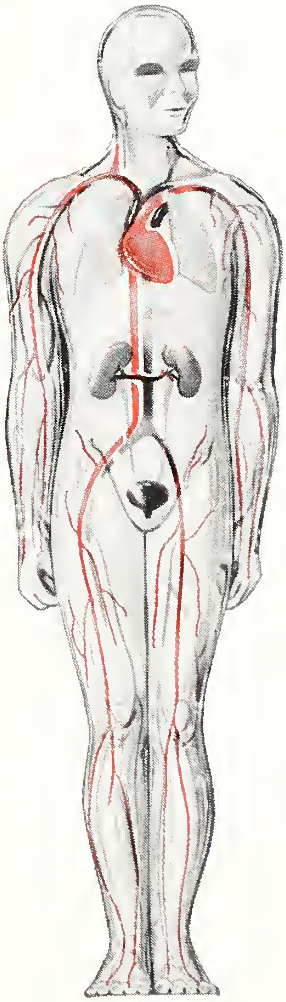

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Missouri's quota of physicians for the Medical Reserve Corps of the Army is practically complete, if all who have received commissions have accepted them, there being at this writing 879 commissions issued. The total number for Missouri was 895, leaving only sixteen on February 1 to complete our apportionment. Buchanan County Medical Society dedicated its service flag February 20. The flag was donated by Dr. Charles Wood Fassett, and contains twelve stars. Lieutenant Ford A. Barnes of Thayer, who was a member of the Medical Corps of the National Guard, on service at Fort Riley, has received an honorable discharge from the Army. Dr. W. B. Post of Carthage was recently commissioned a captain in the Medical Reserve Corps and on January 20, was ordered to Camp Doniphan to take up his army duties. Dr. C. A. Lusk, First Lieutenant in the Medical Reserve Corps, who was stationed at Camp Funston for several months, has been transferred to Camp Doniphan. He stopped at his home in Butler for a few days on his way to his new post.

Dr. T. J. Rigdon of Kennett has been appointed county coroner by the Dunklin county court to fill the vacancy caused by the resignation of Dr. E. F. Harrison who has been ordered to military duty at Fort Riley, Kansas.

Major Frank Billings, M.R.C. professor of medicine in the University of Chicago, has been assigned to the Provost Marshal-General's Office, Washington D. C. It is understood that Major Billings' work in Washington will be that of adviser to the Provost-Marshal, in connection with the medical problems under the Selective Service Law.

TWENTY-FIVE YEARS AGO

The Firmin Desloge Hospital, St. Louis, opened its doors to patients February 3. The hospital is the latest addition to the group of institutions affiliated with the St. Louis University School of Medicine. The hospital which was constructed at a cost of $2,000,000 was made possible through a donation under the will of the late Firmin Desloge, lead magnate and former student of the St. Louis University, and additional donations by the Desloge family.

The Josephine Hospital, St. Louis, was reopened February 1 as the Josephine Heitkamp Memorial Hospital under the direction of the Sisters of Charity of the Incarnate Word. The hospital had been closed since November, 1932, for repairs and refurnishing.

Dr. Archer O'Reilly, St. Louis, has been appointed associate professor of orthopedics in the St. Louis University School of Medicine. He is president of the Missouri Society for Crippled Children and is a member of several orthopedic societies.

The bills in the General Assembly which hold interest for the members of our Association are: H.B. No. 282 is the bill providing that physicians and hospitals shall have a lien for services rendered to persons injured in accidents through the fault of another person or by accidental means, on moneys due the injured person. The purpose of the bill is to safeguard the hospital and physician against loss of fees for services under such circumstances. The bill was introduced by the Honorable A. L. McCawley, Representative from Jasper County, and has had sympathetic support by a majority of the members of the House. H.B. No. 26 provides that a physician's license to practice medicine cannot be revoked on a charge of criminal abortion until after the physician has been convicted of the charge in the courts. This would mean that the case would drag along until after the Supreme Court had passed on the case, while in the meantime the abortionist would be unhindered from continuing his practice. The bill is in committee.

The Catholic Hospital Association of the United States and Canada will hold its eighteenth annual convention in St. Louis, June 12 to 15, with headquarters at the St. Louis University School of Medicine. The association is composed of approximately 750 Catholic hospitals in North America. Archbishop John J. Glennon, St. Louis, is honorary president and advisor of the association. The Rev. Alphonse M. Schwitalla, dean of the St. Louis University School of Medicine, is president, and Sister M. Irene, secretary to the Sisters of St. Mary, is the secretary-treasurer.

TEN YEARS AGO

Howard Miller, M.D., Macon, was the principal speaker at the first meeting of the Macon County Health Council on January 12. Paul L. Barone, M.D., Nevada has been named superintendent of State Hospital No. 3. Hugh McCulloch, M.D., St. Louis, was elected president of the St. Louis Heart Association at a recent meeting. Drew Luten, M.D., St. Louis, was elected vice president, and Arthur

(Continued on page 258)

A LIFESAVING ANTIBIOTIC AFTER OTHER ANTIBIOTICS HAD FAILED

SPONTIN comes to the medical profession with a clinical history of dramatic results — cases where the patients were given little chance of survival.

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Woman's Auxiliary

Mrs. Armand D. (*Ruth Anne*) Fries, *President*

Though is seems but a short while ago that our Auxiliary held its Fall Board meeting, the hectic rush of the Yuletide season is just a happy memory, Spring is on the way, and it is time again to send out the call to our Annual Convention.

The Woman's Auxiliary to the Missouri State Medical Association will hold its thirty-third annual meeting at the Sheraton-Jefferson Hotel, St. Louis, April 13-15. This is the same time and place as the Missouri State Medical Association is meeting.

A most cordial invitation is extended to the wives of all doctors attending the convention to come and register; and to participate in all the social functions, as well as attend the general meetings of the Auxiliary.

The Woman's Auxiliary to the St. Louis Medical Society and the Woman's Auxiliary to the St. Louis County Medical Society will be joint hostesses. Mrs. Lee T. Ford (City) and Mrs. J. Martyn Schattyn (County) are cochairmen of arrangements. They and their combined committees are working diligently on plans to make this a most enjoyable affair.

Conventions afford a splendid opportunity to renew old friendships and make new friends; and we hope all doctors attending will encourage their wives to come along, for a short respite from home activities. Whether it is the work we are interested in or the play we so much enjoy, the time devoted to these gatherings is always well spent and most rewarding. The Auxiliary will be happy to entertain and show prospective members our organization in action. There are no more satisfying, challenging and stimulating avenues for the energies of a doctor's wife than to serve her husband and his profession as a trained, active Auxiliary member. It is the doctor's moral obligation to join the medical society designed for him. It is at the same time, an advantage for his wife to affiliate herself with the Auxiliary, that has been exculsively designed for her.

The National President, Mrs. Paul C. Craig, Wyomissing, Pennsylvania, and Mrs. Walker L. Curtis, College Park, Georgia, President of the Woman's Auxiliary to the Southern Medical Association, will be with us for part of the time. Many social innovations are planned which should prove pleasant to all who attend.

A buffet supper with special entertainment for all visiting Doctors and wives is planned for Sunday evening. Tickets will be available at the Registration desks. We do hope you and your lady will plan to attend. Our tentative program follows.

WOMAN'S AUXILIARY TO THE MISSOURI STATE MEDICAL ASSOCIATION

Tentative Program, 33rd Annual Meeting

April 13-14-15, 1958
Sheraton-Jefferson Hotel, St. Louis

Hostesses: Woman's Auxiliary to the St. Louis Medical Society and the Woman's Auxiliary to the St. Louis County Medical Society.

Chairmen of Arrangements: Mrs. Lee T. Ford and Mrs. J. Martyn Schattyn.

Sunday, April 13

1:30 p.m. Registration, Mezzanine Floor.

2:30 p.m. Preconvention Executive Board Meeting.

6:30 p.m. Social Hour, Buffet Supper, Boulevard Room, Sheraton-Jefferson. Special musical entertainment. Doctors and their wives and friends invited. Chairmen: Mrs. Chas. T. Sheperd and Mrs. Warren Bowersox.

State Convention chairmen and hostesses confer. Mrs. Oliver E. Tjoflat, president of the St. Louis Medical Society Auxiliary, cohostess; Mrs. Lee T. Ford, St. Louis, cochairman; Mrs. Louis F. Howe, president of the St. Louis County Medical Society Auxiliary, cohostess; Mrs. J. Martyn Schattyn, Kirkwood, cochairman.

Monday, April 14

8:00 a.m. Breakfast for Past Presidents of State Auxiliary, President's suite.

8:00 a.m. Registration, Mezzanine Floor.

9:15 a.m. General Meeting, Mrs. Armand D. Fries, presiding, Gold Room.

12:30 p.m. Luncheon honoring Mrs. Paul C. Craig, Pennsylvania, President of the Auxiliary to A.M.A., and Mrs. Walker L. Curtis, Georgia, President of the Auxiliary to the Southern Medical Association; and officers and councillors of the Missouri State Medical Association, Gold Room.

Bridge party, a strictly fun event, with

(Continued on page 222)

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References: **1.** Spies, T. D., et al.: J.A.M.A. 159:645, 1955. **2.** Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. **3.** Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. **4.** Guerra, F.: Fed. Proc. 12:326, 1953. **5.** Busse, E. A.: Clin. Med. 2:1105, 1955. **6.** Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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Committee on Laboratory Medicine

Medical Technology

Laboratory medicine in this country after the turn of the century was practiced by a few devoted scientists more interested in developing new diagnostic tools than of laboratory medicine more interested in developing in establishing laboratory medicine as a separate discipline. However, growth in the field of laboratory medicine was so rapid and so complex that in 1922 the American Society of Clinical Pathologists was established for the purpose of setting standards and effecting some control over the training of clinical pathologists.

Concomitant with this growth there developed a shortage of medical "technicians" and it was also recognized that there was little uniformity in their training. Accordingly, the American Society of Clinical Pathologists established the Registry of Medical Technologists under a board now composed of six pathologists and three medical technologists.

The training of technologists who wish to qualify for certification by the Registry is both academic and technical. The minimum academic background necessary for admission to an approved school consists of two years of college work (3 years beginning in 1962) during which the student is required to take 18 quarter hours or 12 semester hours of biology, 9 quarter hours or 6 semester hours of inorganic chemistry, and 4 quarter hours or 3 semester hours of quantitative analysis, organic chemistry or biochemistry. Electives to make up a total of 90 quarter hours or 60 semester hours are included. The college must be approved and the grade transcripts evaluated by the Registry before admission to an approved school of medical technology.

The candidate next enrolls in one of the schools of medical technology approved by the Council on Medical Education and Hospitals of the American Medical Association where the minimum period of training is 12 months of a prescribed course of study.

Before certification by the Registry, a graduate must pass a 3 hour comprehensive examination. Those passing the Registry examination are permitted to affix the initials M.T. (ASCP) after their name.

The standards are sufficiently high that less than one third of all laboratory workers are certified medical technologists, all others being technicians or aids.

This is more than a "distinction without a difference" since with few exceptions only those technologists authorized to use the designation M.T. (ASCP) are capable by reason of education and training to operate the complex instruments and deal with the innumerable problems which arise from day to day in a modern laboratory. These are not "cook book" technicians but selected individuals who think and act in a professional manner and who understand the theory and background of each test performed. They are scientifically trained.

In contrasts to this background, there are numerous commercial schools requiring no more than a high school education and offering 9 to 12 months of training, of questionable standards, and often with insufficient clinical material to provide a substantial background. The graduates of such schools do not use the designation M.T. (ASCP) but use the title M.T. and comprise by far the largest number of laboratory workers in this country.

This does not imply that all nonregistered technicians are incapable of superior work any more than one can say that meat not government-inspected is unfit to eat. It can not be denied, however, that an individual willing to spend at least two years in college majoring in scientific courses before acquiring technological training is more likely to be superior from the standpoint of character, integrity, academic approach and many other qualities than those without such a background. Thus, the difference in the terms technician and technologist, connoting machine operator and technical expert with academic background, respectively.

It behooves all members of the medical profession to support medical technologists having the highest professional standards in the country and assuring the medical profession of the highest possible competence in the performance of all types of medical laboratory work; namely, the M.T. (ASCP) technologists. Their national society is the A.S.M.T. which has upwards of 5000 members.

These dedicated individuals, often underpaid, are proud to be part of the medical team and expect your counsel and support. There is no better way to encourage their continued loyalty and high standards of practice than to give preference in staffing to those registered or eligible for registry, to attend their meetings and to make it possible for them to attend meetings and postgraduate courses.

In subsequent issues of MISSOURI MEDICINE, the Committee on Laboratory Medicine will discuss various aspects of the practice of laboratory medicine. Topics will include, among other items, blood banking, exfoliative cytology, the handling of surgical specimens, and a reevaluation of some of the older tests. There will be discussion of the relative merits of some of the newer tests from the standpoint of sensitivity, specificity, cost, convenience to the physician and convenience to the patient. Pathologists throughout Missouri have agreed to help the Committee in this new venture.

Woman's Auxiliary

(Continued from page 218)

loads of prizes. All members and luncheon guests invited to play. Chairmen: Mrs. William E. Moore and Mrs. Harold H. Feller.

Tuesday, April 15

8:30 a.m. Registration, Mezzanine Floor.

9:15 a.m. General Meeting, Mrs. Armand D. Fries, presiding.
(Reports continued, memorial service, business, election of officers, election of delegates to A.M.A., installation.) Gold Room.

1:00 p.m. Luncheon, LeChateau, 10405 Clayton Road, honoring past state Presidents of the Auxiliary. Awards, gold cup to "Outstanding Auxiliary" and others. Presentation of gavel to incoming president.
Style Show, Chairman: Mrs. Edmund C. Beckette.

4:00 p.m. Post Convention Executive Board Meeting, LeChateau, Mrs. H. C. Bauman, presiding.

7:30 p.m. Annual Banquet of the Missouri State Medical Association, Sheraton-Jefferson Hotel.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 March, 1958 Number 3

Left Heart Catheterization

An Aid in the Evaluation of Mitral Valvular Disease

VALLEE L. WILLMAN, M.D.; J. GERARD MUDD, M.D.; CHARLES A. NIGH, M.D.,
and C. ROLLINS HANLON, M.D., *St. Louis*

In most instances of mitral valvular disease, the clinical, radiologic and electrocardiographic findings suffice for accurate assessment. Catheterization of the heart provides valuable additional information in certain instances in which the precise relation between disability and the valvular lesion is obscure. To secure such information and to provide an objective baseline against which one might measure the postoperative course of the patient, the first seventy mitral valvotomies in the St. Louis University Hospitals were preceded by catheterization of the right side of the heart. With increasing experience in evaluation of such patients, right heart catheterization was employed only occasionally after 1953, and its place has now been largely taken by transbronchial catheterization of the left side of the heart. This report is designed to indicate the usefulness of left heart catheterization in the diagnosis of mitral valve disease.

METHOD

We have used the transbronchial technic of Allison and Linden,[1] as modified by Morrow.[2] The patient is sedated with barbiturates, morphine and scopolamine. A topical anesthetic abolishes the gag and cough reflex. In adults a 7 mm. by 40 cm. bronchoscope is positioned in the left main stem bronchus approximately one centimeter distal to the carina (fig. 1). A shielded 17 gauge needle, designed by Morrow,[2] is then directed anteromedially through the bronchus into the left atrium. Atrial pressure is recorded directly through this needle by a strain gauge. A small polyethylene catheter is then passed through the needle in an attempt to enter the ventricle. The catheter is readily passed into the left ventricle in 75 per cent of the attempts. If there is difficulty in passing the catheter through the mitral valve, the left ventricle is punctured directly, percutaneously, as described by Brock,[3] and a catheter passed through the needle into the ventricle. The needles and bronchoscope can be removed leaving the catheters in place for pressure recordings with the patient completely at ease.

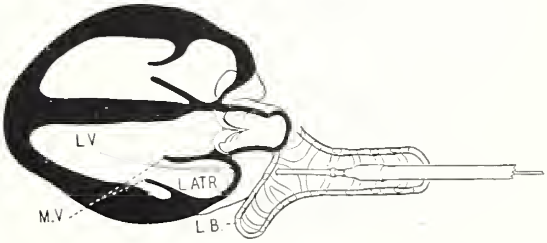

Fig. 1. Diagram of special needle inserted through left main bronchus (L.B.) into left atrium. A catheter has been passed through the needle and across the mitral valve (M.V.) into the left ventricle (L.V.).

A study of pressure patterns in the left atrium demonstrates the information to be obtained. In the normal left atrium a pressure of 4 to 6 mm. Hg. is attained during atrial systole (A wave) (fig. 2). The A wave is followed by a slight drop in pressure and then by a slight increase (C wave or AV wave) as the mitral valve closes and ventricular contraction begins. During the peak of ventricular systole, the pressure in the atrium falls to zero and then gradually rises to attain another peak of 6 to 8 mm. Hg. (V wave) falling as the mitral valve opens. For a brief period the atrial pressure ex-

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(C.A.N.) Fellow, St. Louis Heart Association.

(C.R.H.) From the Department of Surgery and the Cardiac Catheterization Laboratory of the Department of Medicine, St. Louis University, St. Louis, Missouri. Aided in part by a grant from the St. Louis Heart Association and by grant H-3421 from the National Heart Institute of the National Institutes of Health, United States Public Health Service.

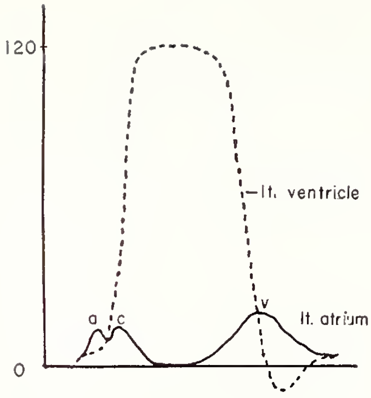

Fig. 2. Normal pressure patterns in left atrium and left ventricle.

ceeds the ventricular pressure and the ventricle fills. Both pressures then fall to near zero.

Stenosis of the mitral valve inhibits the flow of blood from the atrium to the ventricle resulting in a "diastolic gradient." That is, during diastole when both the ventricular and auricular pressures should be nearly zero, the auricular pressure remains elevated. This elevation has been found to be as high as 40 mm. of Hg. (fig. 3).

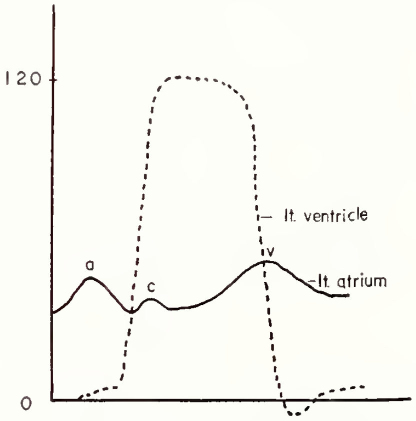

Fig. 3. Pressure patterns in left atrium and left ventricle in mitral stenosis. Note that atrial pressure never falls to the baseline.

Mitral regurgitation allows for reflux of blood from the ventricle into the auricle during ventricular systole and alters the atrial pulse pattern by elevation of that portion of the tracing between the A and V waves, often with considerable accentuation of the V wave. During diastole there is a return of pressure to near zero (fig. 4).

Mitral regurgitation associated with stenosis results in a combination of these pulse patterns (fig. 5).

We have found the procedure to give valuable information in differential diagnosis under three conditions: (1) When there is auscultatory evidence of combined mitral stenosis and regurgitation, (2) when there is a question of myocarditis or myocardial failure mimicking mitral stenosis, (3) when auscultatory evidence of mitral stenosis is present but the subjective symptoms seem out of proportion to the presumably mild degree of stenosis. An illustrative example of the usefulness

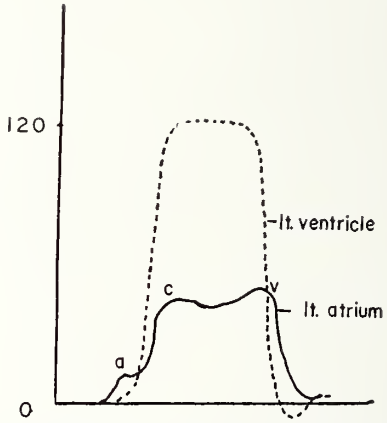

Fig. 4. Pressure patterns in left atrium and left ventricle in mitral regurgitation. Note high plateau type of curve, but fall to normal baseline.

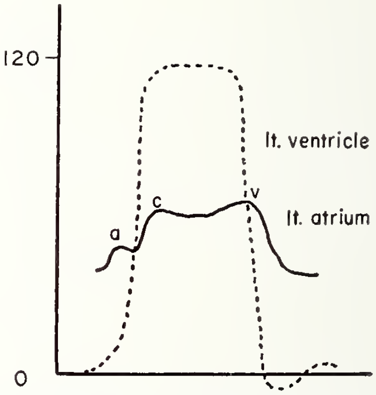

Fig. 5. Pressure patterns in left atrium and left ventricle in combined mitral stenosis and regurgitation. Atrial pressure falls during diastole but not to the baseline.

of left heart catheterization is each of these conditions is included in the following discussion:

1. To quantitate the relative degree of stenosis and regurgitation in combined lesions: a frequent problem in mitral valve disease is the presence of systolic and diastolic murmurs at the mitral area. If the systolic murmur reflects severe mitral regurgitation, one would hesitate to suggest the usual "closed," digital approach to the valve. The open approach with a heart-lung pump, while equally applicable to both stenosis and regurgitation, is still too risky to be applied routinely in all cases of mitral insufficiency. It is essential to prognosis and to operative approach, therefore, that all efforts be made to determine the relative importance of stenosis and regurgitation before operation.

The solution of this problem is typified by the case of a woman of 35 who presented recently with the usual symptoms of cardiac disability. She was found to have a grade three diastolic apical murmur as well as a grade three systolic murmur at the apex transmitted to the axilla. Her heart was enlarged on radiologic examination with chamber enlargement being difficult to determine, but suggesting both left atrial and left ventricular enlargement. Electrocardiogram demonstrated right ventricular hypertrophy. Measurement of her left atrial pressure revealed a rather severe stenosis with minimal regurgitation. It was possible to advise the usual closed commissurotomy with a high degree of assurance.

2. In certain instances of rheumatic carditis, the disability may be extremely resistant to nonoperative management. Direct proof that mitral stenosis is playing an important hemodynamic part in the disability may permit surgical attack on the valve without the worry that an unproductive and possibly fatal procedure is being advised for disability due primarily to myocardial failure.

An example of such a situation is provided by an 18 year old boy who had been hospitalized for a prolonged period in severe cardiac failure with active rheumatic myocarditis. There were auscultatory findings of mitral stenosis but the attending physicians were uncertain as to the hemodynamic importance of the valvular stenosis in contrast to the obvious myocardial involvement. Left heart catheterization demonstrated a significant hemodynamic obstruction at the mitral valve and permitted the firm statement that valvotomy should result in improvement, even with some persisting myocardial residual. After subsidence of rheumatic activity, he was submitted to valvotomy with a dramatic functional improvement.

3. We have encountered several patients with classical auscultatory findings of mitral stenosis and with advanced symptoms, some of which suggested a psychogenic origin. Since it is our policy not to operate on asymptomatic patients with mitral stenosis, we are equally eager not to operate on patients in whom symptoms are present but causally unrelated to the valvular disease. In resolving this difficult problem, the demonstration of actual left atrial pressure is most helpful.

For example, during her first pregnancy, a 23 year old woman was found to have a grade two diastolic murmur at the apex. There was a definite history of rheumatic fever during childhood. Following delivery, she felt that she tired more easily; she was quite disabled by concern about her condition. Electrocardiogram and chest x-rays were normal, but it was felt that unrestricted activity could not be advised without direct evidence of normal intracardiac pressures. Left heart catheterization revealed normal pressures and she was much relieved by the advice to carry on her usual activities. Moreover, the pressures obtained on this initial catheterization will be a most useful baseline for evaluating the development of significant symptoms in later years. Indeed, if an elective catheterization in a year or two should demonstrate significant elevation of left atrial pressure, operation might be advised even though the patient was subjectively unchanged.

It can be seen, therefore, that catheterization not only helps to avoid unnecessary explorations but may provide sound grounds for advising operation in patients who consciously or unconsciously minimize their disability due to fear of operation.

Seventy-four patients have been studied on seventy-seven occasions. In three patients, the procedure was repeated because of failure to obtain satisfactory information at the initial attempt. One other failure to obtain pressures was not rescheduled for catherization. Satisfactory data were obtained in seventy-three of seventy-four patients during seventy-seven attempts.

Thirty-three of these patients have had operations subsequent to catheterization. The correlation of catheterization diagnosis with operative findings has been good in twenty-seven, in that stenosis was the predominant deformity as diagnosed. In six instances, the correlation can be classified as poor, in that more regurgitation existed than was suspected. Even in these, however, stenosis was present to a significant degree.

Complications of the procedure have been slight. There has been no mortality directly attributable to the procedure. However, one patient, a 55 year old female with severe stenosis and regurgitation was studied while in advanced failure fifteen months after mitral valvotomy. On the day after the catheterization she showed progression of her heart failure and aggravation of pulmonary edema. Re-operation was carried out as a last-chance measure but she did not survive.

Infection does not seem to be a problem. Thirty patients have been given antibiotics prophylactically, fifty-four have not. In both groups about half the patients developed a temperature elevation which subsided in from twenty-four to thirty-six hours. This degree of elevation is not unexpected in patients heavily sedated, deprived of oral intake for a few hours, and bronchoscoped. No patient was retained in the hospital because of fever. There was usually a postoperative sore throat which cleared in one or two days. One patient developed mediastinal and subcutaneous emphysema of the neck which had subsided after three days. There were no instances of cardiac tamponade or pericarditis. Some patients submitted to valvotomy soon after the catheterizations were found to have serosanguineous fluid in the pericardium. Minimal hemoptysis was a not uncommon sequel of the diagnostic puncture.

The safety of the transbronchial technic is attributable in part to the fact that in most instances the needle traverses only connective tissue be-

Fiessinger-Leroy-Reiter's Syndrome

Review of the Literature With Presentation of a Case

HILMI MAVIOĞLU, M.D., *St. Louis*

The Fiessinger-Leroy-Reiter's syndrome is characterized by subacute or chronic polyarthritis, nonspecific urethritis and conjunctivitis and seems to be a more common condition than was originally thought.

HISTORICAL SURVEY

This syndrome has been confused with dysenteric arthritis associated with bacillary dysentery which, according to Manson-Bahr,[7] was known to Caelis Aurelianus early in the fifth century. Huette in 1869 said that arthritis after dysentery had been described by Zimmerman in 1765, and about the same time by Lepecq de la Cloture, Stoll and Thomas. Cases of joint disease following dysentery were also published by Gauster, Korczynski, Quinquard and Rapmund in the late nineteenth century. Woodward[1] in his *Medical and Surgical History of the Rebellion in America*, and Remlinger[2, 2a] in France noted acute nephritis as well as arthritis in one case. Krauter described cases in which polyarthritis as well as conjunctivitis was noted after dysentery, and in Markwald's cases all three symptoms appeared.

This syndrome may have been present for centuries and may have been the true diagnosis in some of these cases. It was not until 1916 that it was recognized as a clinical entity. Fiessinger and Leroy[3] while discussing the complications of an epidemic of bacillary dysentery in Somme, France, presented a new syndrome which they had noted and which the believed to be different from the long recognized dysenteric arthritis.

They observed this syndrome four times among patients with mild bacillary dysentery. The temperature never rose above 100.4 F. during the course and symptoms of the dysentery. The new syndrome usually developed between the tenth and twentieth days of this mild dysentery. Their patients developed conjunctivitis and urethritis at the same time. Examination of conjunctival and urethral exudates failed to show gonococcus or other pathogenic organisms. Dysentery bacilli were absent in the urine, urethral discharge, conjunctival discharge and synovial fluid. After 48 hours the conjunctivitis and urethritis subsided, but articular pain developed which involved the neck, spine and feet. In the beginning the pain was migratory, but after three to five days it localized, usually in the knees or wrists, or both. Wrist pain was severe. When hydroarthritis developed in the knee, it was less painful. On the basis of bacteriologic studies and clinical findings, Fiessinger and Leroy felt that their cases were not gonococcal arthritis or dysentery arthritis. This triad of symptoms then was a new syndrome of unknown etiology. They called it "Syndrome-Conjunctivio-Uretero-Synovial," emphasizing the three diagnostic symptoms. For some reason their excellent work, presented in France six days before Reiter's work was published in Germany, has been completely

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From Internal Medical Service, St. Louis County Hospital, St. Louis 5, Missouri.

Heart Catheterization—Continued

tween the bronchus and left atrium, never entering the pleural or pericardial spaces. Morrow[2] has collected more than a thousand cases from three clinics without fatality or serious sequelae. This is in contrast to the somewhat more frequent complications, including a number of deaths, reported in association with percutaneous methods. Our own experience suggests, of course, that any diagnostic procedure performed in patients critically ill will be attended by an occasional fatality to which the procedure may have contributed.

Many amplifications of this simple technic are presently being employed in various centers in an attempt to quantitate the size of valve orifices and flows through them. Certain complex formulae are evolving which are useful as research tools. As a practical, working method, however, the simple technic employed in these patients has been helpful in assessing the importance of mitral stenosis in the causation of disability.

SUMMARY

Transbronchial catherization of the left side of the heart has been a valuable aid in the differential diagnosis of mitral stenosis in seventy-four patients at the St. Louis University Hospitals.

The normal intracardiac pressure patterns are illustrated as well as the variations in mitral stenosis, mitral regurgitation and combinations of these lesions. Brief case reports emphasize the practical value of the technic.

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overlooked by American and British writers on this subject.

This syndrome is customarily described in German, British and American literature as "Reiter's Disease" or "Reiter's Syndrome." Reiter's original paper presented only one case, the following:[4] A German lieutenant on the eastern front suffered from an illness ushered in with severe abdominal pain, diarrhea and blood stained stools. These were followed eight days later by a purulent urethral discharge with bilateral conjunctivitis and, on the ninth day, an acute polyarthritis. Continued remittent fever characterized the illness, in the course of which cystitis, edema of the prepuce, enlarged spleen and pustular lesions of the left hip were noted. Harkness[45] has claimed that this was a case of dysenteric polyarthritis; Fruhwalt has stated that the patient must have had gonorrhea. But Reiter himself pointed out that on several examinations, gonococci were not found. He was able to demonstrate a spirochete in the blood, however, which he called Spirochaeta Forans. Apparently no other authors have been able to substantiate the presence of S. Forans in their cases. Reiter described this case as a new clinical entity under the title "Spirochetosis Arthritica."

About the same time, Macfie[6] in Africa described for the first time in the English language literature a case manifesting the classical triad. Unfortunately he paid little attention to the clinical picture, but concentrated his attention on bacteriologic studies of the urethral discharge, and he described a new spirochete, which he called Spirochete Urethra.

Prior to 1940 only two other reports of this condition had appeared in the English literature. One of these was by Fruhwald, who published two cases said to be similar to the ones reported by Reiter.

The first American report was published in 1942, by Bauer and Engleman.[12] Since that time several cases have been reported in the American and European literature. However, some of these reports included patients in whom only one or two of the components of the classical triad have been present.

PURPOSE AND SCOPE

In order to limit as sharply as possible the scope of this review the material has been limited to those cases showing all three aspects of the triad. Paronen's 334 cases are discarded, because all three cardinal symptoms were present in only 68.8 per cent of his cases. For the preparation of this paper, 187 cases from the literature were analyzed and fifty-five cases were discarded, because the classical triad was lacking or gonococcal infection had not been ruled out satisfactorily. Until there is more data and greater agreement as to the clinical definition and etiology, so-called atypical cases should not be included as cases of this syndrome. This review includes statistics based on 132 typical cases. The statistics presented were derived independently by a process of compiling individually all symptoms listed in those cases considered to be typical.

In those cases reported by specialists, a multitude of detailed symptoms related to their particular organ system were available, whereas little information related to other systems would be reported. For this reason the incidence of minor symptoms may be deceptively low. Along the same line, one may infer that changes perceptible and significant to the specialist may at times be missed in the diagnosis and care of this syndrome.

Unfortunately, only 81 cases permitted the study of joint distribution since some authors did not specify which joints were involved.

This syndrome probably occurs more commonly than is supposed. Some cases have been misdiagnosed as a constitutional disturbance (especially rheumatic fever). Others have been designated by descriptive terms which are inadequate of the syndrome as a whole. Well known examples of these are prostatitis, nonspecific urethritis, gonorrhea, acute conjunctivitis and acute arthritis. On the other hand, some cases of Behcet's recurrent disease and erythema multiforme have been misdiagnosed as cases of Fiessinger-Leroy-Reiter's Syndrome.

NOMENCLATURE

The most important of the names suggested for this syndrome are syndrome conjunctivo-uretro-synovial (Fiessinger and Leroy[3]); Spirochaetosis Arthritica (Reiter[4]); and Reiter's disease or Reiter's Syndrome and polyarthritis urethrica.[9]

Of these, the first, "conjunctival-urethral-synovial syndrome," is the most expressive as it describes the diagnostic triad. The name Reiter's Syndrome is so well established that there is little likelihood that it will be easily forsaken. If it is to be used, it is my opinion that it should be linked with the names of Fiessinger-Leroy, the original discovers of this syndrome. It might then be called Fiessinger-Leroy-Reiter's Syndrome since this symptom complex should not be called a disease until further investigation establishes a definite etiologic factor.

GEOGRAPHIC DISTRIBUTION

The complete geographic extent is unknown. At first most of these cases were reported from France and Germany, but they were soon reported from other European countries, and it is probable that the distribution merely reflected the earlier interest of European physicians. Since 1942 many typical cases have been reported from America and occasional cases have been reported from Asia and Africa.

RACIAL DISTRIBUTION

According to present information this syndrome is relatively uncommon among Negroes. Only 3 per cent of the cases thus far have been reported in Negroes. It should be kept in mind, however, that the majority of reports have been accumulated from northern Europe where the Negro population is small. Future data should help settle this point.

SEX DISTRIBUTION

Thus far only ten cases have been reported in the female.[21, 53, 54, 70, 80] Eight of the ten cases cannot be considered since they did not present the typical triad. Only two of the ten cases are recorded in this paper. One of these had the typical findings of Fiessinger-Leroy-Reiter's Syndrome. The latter appears to have been a case of Behcet's recurrent disease however. This patient had severe eye findings (conjunctivitis, keratitis, iritis and slight neuritis of the optic nerve), but there was only slight urogenital discharge during the first week. Later periodic urinary strain developed, but urethritis was not actually demonstrated.[54]

AGE OF ONSET

This syndrome occurs primarily in men, with a peak incidence between the ages of 20 and 30 years. The youngest patient reported was a 4 year old male,[54] and the oldest was 58. The incidence at age of onset decreases in frequency as follows:

TABLE I
AGE OF ONSET

Age	*Percentage*
20-24	41.5
25-29	22
30-34	15
35-39	13.5
40-44	3
15-19	3
45-49	0.7
55-59	0.7
Under 5 years	0.7

In other age groups there were no reports of a case (see fig. 1).

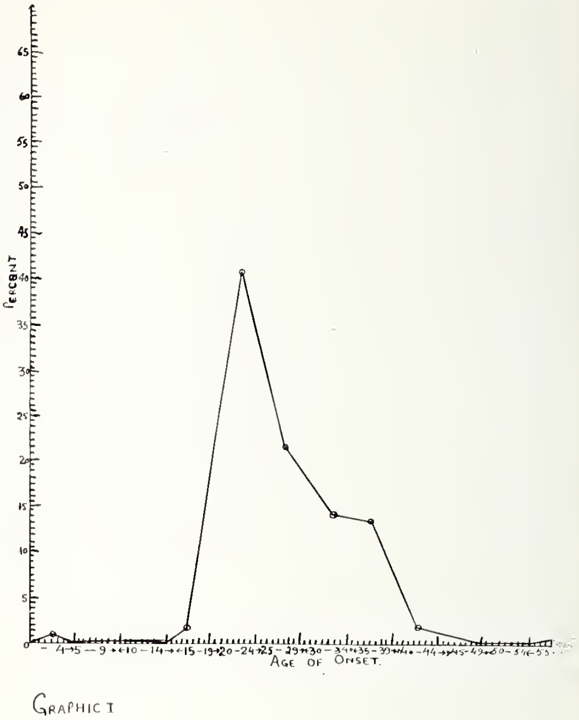

Fig. 1

REPORT OF CASE

This is a 27 year old Negro male, first admitted to St. Louis County Hospital on August 25, 1946 at the age of 17 years, with the complaints of urethral discharge, phimosis and conjunctivitis.

Three weeks prior to admission he had had sexual exposure. Two weeks prior to admission he had developed a purulent urethral discharge together with burning on micturition. These symptoms were still present on admission. He claimed that the conjunctivitis had started two months prior to admission and had remained unchanged. There were no complaints referable to the joint on admission.

Physical Examination—Eyes; the conjunctivae were bilaterally inflammed. There was serous exudate and a yellowish discharge from the eyes in the morning. There was severe phimosis and verruca vulgaris over the prepuce. There was a purulent discharge from the urethra. Prostate was firm and non-tender. The remainder of the examination was not remarkable.

Course in Hospital—On the sixth day after admission the patient developed pain and swelling in the right knee and ankle. An attempt to aspirate the right knee was made but no fluid was obtained. The patient had no chills, and temperature was never over 99 F. Penicillin and sulfonamides were given and the urethritis subsided on the thirteenth day after admission.

Laboratory Examination—Four smears of the urethral discharge on different occasions failed to show gonococci. G. C. Complement fixation test was anticomplementory thirty days after the onset of urethral discharge. Urinalysis on admission showed one plus albuminuria and more than 50 leukocytes. Five days after admission the urinalysis was normal. Fasting blood sugar and nonprotein nitrogen were within normal limits. Kahn test was negative. Radiographic examination of the right knee showed swelling of the soft tissue in the supra-patellar region, but no changes in the bony structures.

Interval Note—In 1948 the patient complained of pain in the right knee, but the x-ray examination of the knee was normal. The second admission occurred on November 15, 1955. This time his illness started with a urethral discharge 14 days prior to admission which had increased after the sixth day. He was given penicillin by a local physician 10 days prior to admission. Eleven days prior to admission he developed pain in the right flank which was followed, a few days later, by pain, swelling and redness in the left knee, and later by the onset of pain in the right great toe. The toe was swollen, red and tender in contrast to the knee.

Physical Examination—The conjunctivae were mildly reddened. The fundi showed superior lipping of the disk. A yellowish purulent urethral discharge was present. The right great toe and the surrounding area were hot, red and swollen. Large inguinal lymph nodes were noted. The remainder of the physical examination was not remarkable.

Course in Hospital—On the second day of hospitalization the right great toe was aspirated and 1 cc. of tenacious stringy fluid was removed. The smear showed many polymorphonuclears but no microorganisms. The culture gave no growth. On the fourth day of hospitalization he developed pain in the right knee and the first and second interphalangeal joints of the fourth and fifth digits of the right hand. These areas were swollen, fluctuant, hot and tender. On the same day 40 cc. of yellowish fluid was removed from the right knee. Culture gave no growth. On the eighth day the left knee became hot and painful. On the twenty-eighth day of admission both knees were aspirated and 30 cc. of fluid was obtained from the right, 10 cc. from the left. Hydrocortisone was injected into each space.

By the third day of admission the urethral discharge had subsided, but on the twenty-first day of admission after being given a total dose of 9,400,000 U. of penicillin, 6 gms. of dihydrostreptomycin, 15 gms. of tetracycline hydrochloride and 20 gms. of sulfonamides, a small amount of discharge could still be obtained for smear.

Laboratory Examinations—The following examinations and tests were within normal limits: complete blood count on four occasions, except the leukocyte count which fluctuated 12,000 and 9,500 and the sedimentation rate between 34 and 18 mm. urinalysis uric acid on two occasions, radiographic examination of the chest and lumber spine and right foot, electrocardiograms, antistreptolysin 0 titer. The protein content of the synovial fluid was 1.8 gm. per cent.

The VDRL, sickling preparation, the culture from urethral discharge on admission and twice later, smears and cultures from synovial fluid on two occasions were all negative. Gonococci and tubercle bacilli could not be demonstrated.

On admission, smear from the urethral discharge showed gram negative diplococci but cultures for gonococci were negative. After massive doses of antibiotics, smear of the urethral discharge, on the twenty-first day of hospitalization, contained positive diplococci. Radiographic examination of the right knee was done on two occasions. The first showed an elevated linear area of calcific density overlying the adductor tubercle. After twenty-eight days, in addition, there was a small calcific density on the medial aspect of the knee joint. The joint spaces appeared to be well preserved, no bone destruction being noted.

Therapy—The patient was treated with antibiotics, butazolidine, acetyl salycilic acid and codeine, adrenocorticotrophic hormone (ACTH), prednisolone and intra-articular hydrocortisone, with little apparent benefit.

After 38 days of hospitalization the patient was discharged, improved and with little joint pain.

Follow-Up—During the five months following discharge he continued to complain of some joint pain. The sedimentation rate remained high (34 mm.). Electrocardiogram was within normal limits.

Colchicine therapy was tried without benefit. A brief admission on April 18, 1956, for acute tonsillitis did not alter the symptoms related to Feissinger-Leroy-Reiter's Syndrome.

Follow-Up—He continued to have pain in the right knee and in the left ankle. In the seven months following discharge he had had 675 mg. of prednisolone, 286 gms. of acetyl salycilic acid, 40 grams of butazolidine, 143 gms. of aspirin-phenacetine-caffeine compound with little benefit.

The patient was re-admitted on July 20, 1957 with the chief complaints of pain in the right knee, left ankle and lower back, persistent hiccup, and premature ejaculation of semen.

The patient's general health was good but he was depressed and somewhat unhappy due to unsuccessful treatment. General physical examination and neurologic examination by neurologist were within normal limits, the conjunctivae were slightly congested, the right knee was slightly swollen, but no fluid could be obtained by aspiration. Hydrocortisone was injected intra-articularly.

The following tests were positive or abnormal: Spinal fluid showed fluid protein 80 mg. per cent. Electrophoretic studies on serum showed slight elevation of gamma globulin, the sedimentation rate was slightly elevated (20 mm.). Radiographic examination of the chest showed a diaphragmatic pleurisy on the right. X-ray of knees, ankles, wrists and elbows showed only slight degenerative changes and there was no evidence of bone decalcification, destruction or other pathology. Electrocardiogram showed prolonged P-R interval and slight S-T segment elevation in Lead II and III, AVF and V_6. A fungus resembling actinomyocosis was cultured from bone marrow but this finding was not verified by subsequent cultures. Inoculation of guinea pig with this microorganism resulted in a solitary abscess of a nonspecific type.

The following tests were within normal limits: Nonprotein nitrogen, liver function tests, electrolytes, spinal fluid sugar, chloride and cell count, hematologic studies including electrophoretic studies of lumbar spines and pelvis, biopsy of skin and skeletal muscle.

The following tests were negative: PPD, VDRL, Frei test, bone marrow and cellular debris of urine for intracytoplasmic or intracellular inclusion bodies. Electrocardiogram, urinalysis, heterophil sheep cell agglutination, culture from urethral washing for pleuropneumonia-like organism, L. E. cells, and inoculation of mouse with microorganism cultured from bone marrow aspiration.

Hospital Course—The patient remained afebrile. On the sixth day of hospitalization the patient developed a severe headache which lasted for four days. On the tenth day of hospitalization severe hiccup began and lasted a week. Mepharsen 40 mg. intravenously was given twice a week for joint pain with little benefit from gold salts.

The last admission, on November 5, 1956, occurred because of intractable hiccup. Physical examination was essentially normal. Skull series, barium swallow, gastrointestinal x-rays were normal. Spinal fluid protein was 19 per cent mg. and virus studies from spinal fluid and blood serum were negative. Since discharge patient has done fairly well.

Summary and Discussion—This patient has had urethritis, conjunctivitis and arthritis off and on for the last ten years. When first hospitalized, gonococcal infection was definitely excluded on the basis of bacteriologic smears and culture examinations. On the second admission, on one smear gram negative diplococci and one occasional gram positive diplococci were found. Culture from urethral discharge on the day of admission and subsequent cultures from urethral discharge and synovial fluid all were negative for gonococci and for other specific pathogenic microorganisms. I believe that gonorrheal arthritis as well as rheumatic fever and rheumatoid arthritis was completely ruled out.

This patient represents a true case of Fiessinger-Leroy-Reiter's Syndrome. He had his first attack in 1946 and since then he has been having recurrences. Most of the time he had only arthritis but at times the full blown triad has been present.

The hiccup could be due to diaphragmatic pleurisy or it could well be central. One should keep in mind two main causes of central hiccupping, namely uremia and central nervous system involvement. Uremia is unlikely in this case. On the contrary, with increased protein in cerebrospinal fluid, headache off and on, and intractable hiccupping one must consider the possibility of central nervous system involvement, but in this case such a diagnosis cannot be proved. Thus far, involvement of every organ except the central nervous system has been reported in the literature. In my opinion, on a theoretical basis, involvement of the central nervous system may occur with this syndrome.

CLINICAL PICTURE

Generally the initial symptom is urethritis. This is soon followed by conjunctivitis, and subsequently by arthritis. The average interval between the initial symptom and the complete triad is generally from two weeks to four weeks, although intervals as long as ten years from the onset to the development of the full blown triad have been reported.[83]

Reports subsequent to the original description have added new symptoms involving the skin, mucous membrane, eyes and urogenital system, which were not originally included.

In the majority of cases there is only a low grade fever; fever above 100.4 F. is present in only 22 per cent of cases.

INVOLVEMENT OF THE URINARY SYSTEM

Nonspecific urethritis is one of the three main symptoms. In order to establish the diagnosis of this syndrome a nonspecific urethritis should be present or a history of it must be determined. A history of extramarital sexual exposure was obtained in 22 per cent of the cases, the last exposure varying from 36 hours to as long as four weeks prior to the onset of symptoms. The urethral discharge of the syndrome seems to be less profuse than that of acute gonorrhea. It is reported to vary from seropurulent to thick purulent and it may also contain blood. The urethritis in most instances clears up in less than two weeks, but in several cases has been reported for as long as six weeks. Cultures and smears as well as the complement fixation test for gonococcus are negative.

Twenty-four per cent of patients complain of dysuria and burning in the urethra before and after micturition.[37, 41, 43, 56, 74] Frequency of urination and urgency have been observed in 24.5 per cent of patients.[29, 37, 41] The patients may need to void as frequently as every one half hour during the day and night. Forked stream has also been noticed (0.7 per cent).[43]

Hematuria is a frequent finding, being present in 16 per cent of patients.[20, 23, 41, 43, 56, 59, 74] It is most often terminal, but a persistent hematuria of moderate degree[43] and marked tenesmus on terminal urination with the passage of large blood clots,[27] or even a gross hematuria,[20] have been reported. From the data available in the literature it is impossible to determine how frequently this hematuria is due to hemorrhagic cystitis (discussed later).

Prostatitis occurs in 15.5 per cent of patients.[12, 20, 25, 28, 37, 49, 56, 72] It has been found to be complicated by abscess formation in 1.4 per cent of patients.[20] Prostatic enlargement without infection has also been observed in 6 per cent of patients.

Rarely the vesicula seminalis may become enlarged and blocked.

Involvement of the urinary bladder is not rare. Cystitis has been observed in 8 per cent of patients.[4, 27, 28, 29, 41, 56, 72, 74] In addition to that, hemorrhagic cystitis has been noticed in 2.1 per cent of patients.[23, 27, 49] When cystoscopy was performed, it showed generally a reddened bladder mucosa, sometimes markedly injected or edematous, sometimes with a fibrinous lining and thickening in the bladder wall.[23, 27, 29, 41, 43, 74] Small ulcerations covered with stringy adherent mucopus or multiple discrete plum colored ulcers or both have been reported in 21 per cent of patients.[29] Usually urethral catheters have been passed and urine obtained from these catheters was free from pus and clear. In one case urethral strictures were observed by Twiss and Douglas.[37] In one other case both urethral orifices were dilated.[43]

Renal complications may occur and may be of considerable severity. Severe pain in both kidney regions with considerable tenderness over the costovertebral angles,[20] renal colic and dilated kidney pelvis has been reported. Pyelonephritis has been reported in 1.4 per cent of cases,[20, 74] and in one of these cases the right kidney was removed and diagnosis of slight pyelonephritis was confirmed by pathologic examination. Also hydronephrosis has been reported in 1.4 per cent of patients,[28, 72] and hemorrhagic nephritis in 1.4 per cent.[74]

Skin manifestations of the genital organs are frequent findings. Ulceration and circinate ulceration of the penis is the most common finding; it occurs in 15 per cent of patients.[27, 29, 49, 52, 59, 65, 73, 85] The next most common findings are balanitis circinata and balanitis which occur in 13.5 per cent of patients.[12, 21, 25, 40, 56, 59, 85] Circinate lesions and superficial ulcers of the glans penis are not rare, occurring in 5.6 per cent of patients.

[12, 27, 29, 33, 49, 65, 73] Severe balanoposthitis has been reported in 2.8 per cent of patients.[29, 49, 54, 59] But ulcerative balanoposthitis has been reported only in 0.7 per cent of patients. Other findings are rare. However, keratoderma has been reported in 1.4 per cent, as well as excoriation and denudation of the glans penis.[27, 28] Small vesiculae or diffuse vesicular eruption with rupture and small superficial erosions over the glands have been reported.[27, 65]

The urethral meatus is often described as being swollen and red and its mucosa as slightly pouting.[38] Erythema, erosion,[72] inflammation[59] and even superficial ulceration of the urethral meatus have been reported.

Involvement of the scrotum, in contrast to Behcet's disease, is rare. An erythematous, weeping eczematoid eruption of the scrotum, has been observed in 2.8 per cent of patients. Ulceration of the scrotum has been observed in only 0.7 per cent.[37] Pruritis has seldom been observed.

OCULAR INVOLVEMENT

Some degree of conjunctivitis is almost always present. In the great majority of patients it is the only ocular manifestation and occurs as a mild hyperemia with smarting. These symptoms are usually followed by a yellowish mucopurulent discharge. Photophobia, together with lacrimation, may be present in only 2.8 per cent of patients.[23, 28] No specific microorganism can be isolated from this discharge. Conjunctivae rarely may become edematous and ecchymosis may develop.[28, 73] The conjunctivitis characteristically resolves spontaneously in about two weeks, but it may recur and may be followed by keratitis in 10.5 per cent of patients. Keratitis may occur as superficial, punctuate or herpetic keratitis.

Iritis is the next common finding and occurs in 8.5 per cent of patients.[4, 6, 23, 25, 29, 33, 38, 56, 73, 74, 82] Iridocyclitis occurs in 3 per cent of patients.[70, 72, 74] Corneal involvement is not rare, and corneal ulcers occur in 6.4 per cent. One half of these patients had marginal corneal ulcers.[12, 29, 37, 38, 54, 65, 73] Also, corneal infiltration occurred in 3.5 per cent of patients,[23, 53, 54] maculae of the cornea in 2.1 per cent[54] and opacity of the cornea in 1.4 per cent.[29, 37]

The following instances of ocular involvement, other than the mentioned symptoms, have been compiled: Scleritis and episcleritis in 2.8 per cent,[27, 28, 39] synechia in 28 per cent,[23, 38, 72, 83] blepharospasms in 1.4 per cent, lenticular cataract in 0.7 per cent and secondary glaucoma in 0.7 per cent.[38, 72]

It should be emphasized that lesions of the posterior part of the eyes are rare. On infrequent occasions, however, cloudiness of the aqueous humor, inflammatory reaction[70] or turbidity[29] in the anterior chamber, optic neuritis[54] and peripapilledema[83] have been reported.

ARTHRITIS

Arthritis is the predominant, and often the disabling, symptom. Even in atypical cases it is present. In the great majority of cases it is polyarticular, migratory, and asymmetrical in character but rarely it can be monarticular.[68] Different joints may become involved simultaneously or successively. Symptomatically the involved joint is tender on movement, but also spontaneous pain is bothersome, particularly at night. Occasionally the affected joints also become hot and red. Joints of the lower extremities are more frequently affected than joints of the upper extremities, and large joints take precedence over small joints. In decreasing frequency the joints involved with percentage are as follows: knee 86, ankle 57, wrist 30.4, hip 24, elbow 16, shoulder 15, toe 11, metatarsal 11, metacarpophalangeal 9, spine 9, interphalangeal 9, temporomandibular 5.5, finger 5, sternoclavicular 4, metacarpal 2.7, and sacroiliac 1.4 (see fig. 2).

Hydroarthritis is the most frequent type of joint involvement, occurring to some degree in 31 per cent of total cases. Effusion, when present, prolongs the recovery period. The severity of the effusion may vary considerably from case to case or even from joint to joint in the same patient. The involved joint may only be slightly swollen

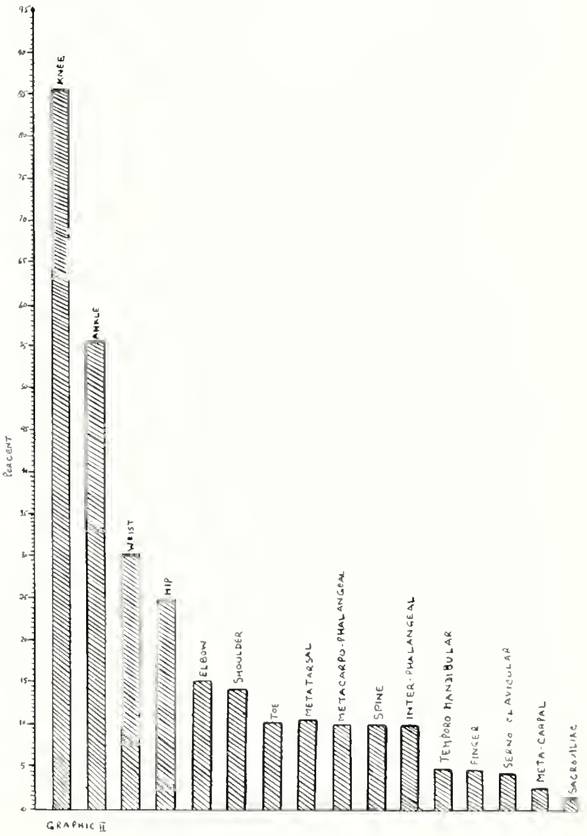

Fig. 2

or, at the other extreme, unbearable pain may be caused by the excessive formation of synovial fluid in the joint cavity.

Residual joint stiffness occurs in 19 per cent, atrophy of muscle of 8 per cent and ankylosis in 1.4 per cent of total cases.[38]

There are no characteristic radiologic findings although changes are not infrequently seen. Radiographically the most common finding is osteoporosis.[25, 49, 73] It occurs in 8.5 per cent of total cases. Usually it will be seen as a poorly defined, often spotty, area of decreased density at the end of the bone. Occasionally the following findings have also been reported by the radiologist: periosteal proliferation 2.8 per cent,[12, 25, 29] bony atrophy 2.8 per cent,[12, 73] bone destruction 2.1 per cent,[12, 37, 68] decalcification 2.8 per cent,[37, 73, 77] narrowing of the joint space 1.4 per cent,[28, 37] and tenosynovitis 2.8 per cent.[72]

ORAL INVOLVEMENT

Lesions of the mouth are usually limited to the buccal mucosa. Shallow ulcers occur in 13 per cent.[29, 37, 59, 65, 72, 85] These ulcers may be covered with bloody crust. Sometimes multiple small yellowish vesicles may form. In areas such as the soft and hard palate and pharynx, they may gradually spread and become superficially ulcerated.[37, 65] The following diverse lesions have also been reported: herpetic lesions of the lip,[67, 73] acute inflammation and severe ulcers on the tongue, soreness of the gum, ulceration of the gingival margins[65] and canker sores of the mouth.[59]

CUTANEOUS INVOLVEMENT

There is no specific cutaneous manifestation for this syndrome, but in 50 per cent of patients various types of cutaneous involvement have been reported. Nonspecific mucocutaneous lesions are present in 19 per cent and papular eruptions of the skin in 14 per cent. Ulceration may occur on various parts of the body, such as the genital organs, mouth and eyes. The patient may develop large flat pustules on the soles of the feet and lower legs. These are usually replaced by thick keratotic crusts which may not scale off until they are 4 to 5 mm. thick.[33] In other cases deep seated vesicles may appear in clusters on the plantar skin, and they may rapidly enlarge and ulcerate.[29] Small, firm, brownish hyperkeratotic lesions[65] may occur on the soles of the feet.

In 8.5 per cent a cutaneous lesion clinically and histologically indistinguishable from keratodermia blennorrhagica has been reported.[21, 25, 33, 47, 49, 71, 72, 74, 77]

This lesion is usually distributed over the palms and soles but occasionally is found on the trunk and extremities. Microscopically, elementary bodies may be found. These are thought by some authors to be a granular phase in the development of the pleuropneumonia-like organisms (to be discussed later).[24] Some authors have suggested the possibility that keratodermia blennorrhagica is a skin manifestation of non-gonococcal urethritis, probably due to a virus that occurs alone or in association with gonorrhea.[21, 24] Rostenberg and Silver have suggested the name "dermatitis rupioides arthropathica" in place of keratodermia blennorrhagica, denoting that in not all cases is it associated with gonorrhea.

Other less common lesions which have been reported are: hyperkeratosis 2.1 per cent,[37, 65, 85] pustules 2.1 per cent, vesicular skin lesions with later ulceration 2.1 per cent, erythema simplex 1.4 per cent, herpes-like vesicles 1.4 per cent,[65] and acute eruptions resembling erythema multiforme 0.7 per cent.[28]

Involvement of the fingernails and toenails is fairly common, occurring in 8 per cent of cases. The toenails may be involved by pustular lesions which slough out, healing with a dry keratotic bed.[33] Keratotic lesions with suppuration and subsequent shredding also may involve the nails of the toes or fingers. The nails finally may become thickened and brittle, or keratotic deposits may develop under them and raise them from their bed.[37] Subungual abscess has also been reported.[25]

GASTROINTESTINAL INVOLVEMENT

The reader will recall that, in the beginning, this syndrome was thought to be a complication of bacillary dysentery. Diarrhea is the most common gastrointestinal symptom and has been considered by some authors as the fourth cardinal symptom. When present, diarrhea usually precedes the onset of other symptoms by ten to twenty days. In this review diarrhea was found in 15.5 per cent of patients, although some authors gave considerably higher figures than this. Five per cent of the total cases included in this paper occurred in association with bacillary dysentery and 0.7 per cent with amoebic dysentery.

Anorexia, nausea and vomiting occasionally have been reported.[36, 65] Death of one patient due to gastrointestinal bleeding was also reported.[15]

CARDIAC INVOLVEMENT

Thus far, cardiac involvement has been infrequently noted. However, functional cardiac systolic murmurs have been reported in 3.5 per cent of patients.[72, 73] In 1.4 per cent myocarditis has been detected. Pericarditis is a rare finding.

The most commonly noted electrocardiographic abnormalities are changes of S-T segment and prolongation of P-R interval; intervals up to 0.32 seconds with second degree heart block has been reported.[38, 59]

INVOLVEMENT OF RESPIRATORY SYSTEM

Occasionally, in the absence of any other explanation, dry pleurisy and pleuritic pain,[41, 72, 73] cough and bronchitis[72] have been reported.

Epistaxis may occur. This is most probably due to ulceration of the nasal mucosa, although prolongation of the coagulation time has been suggested.

INVOLVEMENT OF NERVOUS SYSTEM

Peripheral nervous involvement, i.e., neuritis, is the most common finding. Polyneuritis has been observed, both alone and in conjunction with other symptoms of this syndrome. The polyneuritis is usually localized in the nerves of the proximal muscles comprising the shoulders, pelvic region, and the abdominal muscles. In severe cases of polyneuritis, according to Wilke, the distal nerves of the extremities are also occasionally affected and then there are, beside muscular paralysis, sensory disturbances characteristic of the distal type of neuritis. In the proximal type, sensory disturbances may be entirely lacking at first. Sciatica,[83] optic neuritis,[54] and neuralgias have also been described. The most frequent localizations reported are the trigeminus, occipitalis, frontalis, supra-orbitalis, intercostalis, ulnaris, radialis, medianus, ischiadicus, saphenous and tibialis.

The cerebrospinal fluid abnormality, as reported by Wilke, was a high albumin content with normal cell findings.

MISCELLANEOUS

Occasionally the following clinical findings have been observed among the patients suffering from Fiessinger-Leroy-Reiter's Syndrome: generalized adenopathy with involvement of the cervical axillary, epitrochlear and inguinal lymph nodes,[37, 72, 73] splenomegaly,[4, 65] hepatomegaly,[38, 72] external otitis,[40] parotitis and inflammation of the submandibular, lacrimal and mammary glands, and loss of weight. Time will tell whether these are truly related or merely coincidental findings.

LABORATORY FINDINGS

There are no truly characteristic laboratory findings. In a great majority of cases an increased sedimentation rate parallels the clinical course, with the greatest elevations being reached in those presenting active arthritis. Moderately elevated white blood cell counts sometimes occur, with elevation of neutrophils and, in a few cases, eosinophils being reported. A moderate normocytic anemia may occur.[29, 37]

Electrophoretic patterns on two sera showed a considerable elevation in the alpha –1 and alpha –2 globulin fractions with only a slight elevation of gamma globulin and a moderate decrease in albumin. The level of alpha-globulin components was higher, whereas that of the gamma-globulin was lower than those observed in the majority of the rheumatoid patients.[81]

In two patients electrophoretic studies of the serum and the synovial fluid revealed the albumin content of the synovial fluid to be higher than that of the patient's serum.[79]

The typical synovial fluid is yellowish, viscous, slightly turbid and fibrinous. It has an albumin content of 1.3 to 4 per cent. Inflammatory cells, usually neutrophilic and eosinophilic leukocytes, have been reported. The effusion is usually sterile, but pleuropneumonia-like organisms have been recorded in isolated instances.[56, 59]

The urine shows albuminuria in a great majority of patients. During the stage of urethritis there may be red blood cells and pus cells in the urine and, as discussed before, gross hematuria.

In a few instances pleuropneumonia-like organisms have been demonstrated in prostatic secretion and in urethral discharge as well as in synovial fluid.

Blood cultures and serologic tests for syphilis, as well as complement fixation tests and agglutinations, have all been reported as negative with the exception of a few cases of positive serology for bacillary dysentery. Tuberculin and Frei tests also have been negative in a great majority of cases.

MORBID ANATOMY

According to the literature postmortem examination has been performed on three cases. On these cases only one was typical, that reported by Wepler.[15] The other two cases reported by Remlinger[2a] in 1901 were, in my opinion, typical cases of bacillary dysentery with the complication of arthritis without eye and urogenital findings. Therefore, these two cases will not be discussed in this paper.

Wepler's patient apparently died of massive bleeding in the gastrointestinal tract. A rupture of a submucosal vessel in the wall of the stomach was found. There was no ulcer, no thrombus and no inflammatory response. The cause of the rupture was not definitely revealed by microscopic study.

Examination of the knee joints was done by Wepler[15] (postmortem) and others[12, 25] (antemortem biopsies). In the summary these revealed reddish-purple synovia. The articular cavity was sometimes normal, but in some cases contained greenish-yellow fluid. The cartilage appeared normal. Microscopic examination revealed intense inflammatory reaction which was limited to the superficial synovial layers and did not involve the supporting collagen, fibrous connective tissues or vessels walls. The synovia were thrown into large club-like projections in which abundant capillaries were all dilated. Each projection was distended by a heavy lymphocytic infiltrate mixed with a few plasma cells and a few neutrophils. No fibrinous exudate was observed. The intima was approximately six to ten layers deep. Only a few perivascular collections of lymphocytes and plasma cells could be found. There were no well defined new capillaries. Nothing pathologic was observed in the cartilage and the bone. This process is nonspecific and, as such, is quite distinct from the acute synovitis of either specific infectious or rheumatoid arthritis.

Biopsy of enlarged inguinal lymph nodes showed only a nonspecific type of hyperplasia and chronic inflammatory changes.[37, 41]

Biopsies of hyperkeratotic skin lesions have been interpreted as indistinguishable from keratodermia blennorrhagica. The histologic features follow: [27, 71, 77, 85]

1. Prominent parakeratosis with excessive loosening of the scales so that they may be difficult to include in the histologic sections. The more severe pathologic changes concern the uppermost stratum of squamous cells, amounting to intracellular hyaline degeneration and leukocytic infiltrate. Micro-abscesses of Monro may be present in the epidermis.
2. Acantosis with elongation and rounding of the ends of the pegs, much as in psoriasis. Pustular psoriasis may be a difficult diagnostic problem.
3. Elongation of the papillae but generally not as strikingly as in psoriasis because the overlying epidermal plate is usually not as thinned as in the latter disease.
4. Numerous polymorphonuclear leukocytes, particularly in the upper rete Malpighii and in the scales. These leukocytes tend not to be clustered densely into epidermal abscesses but rather they are scattered more or less evenly and tend to occur in lacunae. The infiltration of the vascular papillae is principally of lymphocytes and histiocytes.

ETIOLOGY

The cause of this syndrome is still obscure. Reiter[4] found atypical spirochaeta in the blood and Macfie[6] found one type of spirochaeta in the urethral discharge. Investigations by others have not verified their findings. Some of the authors[70] claimed that the description and the drawings of the organisms found by Reiter and Macfie resemble pleuropneumonia-like organisms.

Several authors indicate the possibility that this syndrome presents late sequelae of a bacillary dysentery. Manson-Bahr commented, in discussing Beiglbock's work, that this syndrome appears to be nothing more than the familiar dysenteric polyarthritis with some added toxic manifestations. Attempts have also been made to discover what type of dysentery might be responsible for this syndrome. It has been thought that the syndrome may occur both in toxic and nontoxic forms of bacillary dysentery. It has been reported in Shiga-Kruse's and in Flexner's dysentery.

Some investigators have suggested that the whole urinary and genital tract may be infested by an organism and that the urethra is the portal of entry.[41, 51, 72] It seems possible that the other symptoms seen in this syndrome may be a further extension of the same process.

Harkness[24, 46] claims to have demonstrated inclusion bodies in material from the urethra and conjunctiva. Others[50] have recovered a virus by inoculating embrionated eggs with filtrated urethral and conjunctival exudates. They were able to produce conjunctivitis in mice intraperitoneally inoculated with 48-hour allantoid cultures. Others have suggested that the virus of lymphogranuloma venerum could be the cause.[44, 75]

Freinberg has shown that an experimental arthritis simulating the proliferative arthritis of man may be produced in rabbits by the repeated injections of a bacterial extract of S. Paradysenteriae y. He concluded that the dysenteric arthritis of man may be a local allergic manifestation of a bacterial infection in the intestinal tract. Many other authors have believed that the arthritis of this syndrome is a local allergic manifestation of a generalized state of allergy to a specific bacterium or bacterial extract.[37, 59, 65, 72, 82]

Dienes and Smith[30, 56] were the first to suggest that a relationship might exist between certain types of arthritis, Fiessinger-Leroy-Reiter's Syndrome and the pleuropneumonia-like organisms. Later this idea was supported by other authors. [31, 52, 59] Pleuropneumonia-like organisms have been isolated from the joints in cases of polyarthritis in rats.[10, 13] Experimentally arthritis and conjunctivitis have been produced in rats and mice by these organisms,[14, 52] but it has not been possible to incriminate organisms of this group as causative agents in human rheumatism.[14]

In order to evaluate claims that they may be implicated in Fiessinger-Leroy-Reiter's Syndrome it is necessary to discuss briefly the pleuropneumonia-like group of organisms. This group seems to fall in between the bacteria, rickettsia and filtrable virus organisms. From bacteria they seem to differ less fundamentally. They fit into the lowest end of the bacterial scale near the genera pasteurella and hemophilus. The pleuropneumonia group of organisms are microscopically visable, extremely pleomorphic organisms, showing granules, rings, coccoid forms, filament and other bizarre forms. They are facultative anerobes. On suitable solid media they form characteristic minute colonies, but render liquid media slightly turbid. Parasitic species require a high concentration of animal protein in the medium. They are gram negative but stain poorly with ordinary bacterial stains. With Giemsa they stain well. Some forms can pass through coarse bacterial filters as can viruses. In contrast to viruses they may be cultivated in a lifeless medium. Physically they are readily destroyed by heat and have no special resistance to glycerol. Some species are bile soluble.

They exhibit a considerable degree of host specificity. Antigenic specificity is usual but not complete. Immunity is not lasting. They do not give rise to inclusion bodies.

"L_1" organism, a variant form of the bacillus, has been isolated from a considerable variety of gram positive and gram negative bacteria. It might be difficult, if an "L" form was isolated apart from the bacterium of which it was a variant, to distinguish it from an organism of the pleuropneumonia group. Salman[36] has made the alternative suggestion that "L" organism are stages in the life cycle of the gonoccocus. The transition from the normal to the L form appears to occur as the result of injury to the bacteria and is preceded by autolytic changes in the culture. Antigenically they are closely similar to the organism from which the are derived. They are resistent to penicillin. They can pass through coarse bacterial filters. Under suitable conditions they revert to their original form by swelling into large bodies which then give rise to bacteria possessing the normal morphology.

Numerous workers[16, 18, 30, 56, 59] have isolated pleuropneumonia-like organisms from the male and female genital tract in normal and abnormal conditions. The incidence has been found to be high in the female genital tract. In this review "L_1" organisms were demonstrated in only 3 per cent of cases.

CONCLUSIONS AND DISCUSSION

After the review of these confusing opinions, it should be emphasized that the etiology could not be bacterial. Although bacteria are present most of the time, they are probably secondary invaders. When fever is present secondary infection is the probable cause.

Pleuropneumonia-like organisms are, most probably, present in the normal flora of the genital organs. Thus far, it has not been possible to incriminate organisms of this group as causative agents of any type of human arthritis.

Also hypersensitivity has not been found often in this syndrome.

The most likely etiologic agent is some type of virus. In the case reported, however, inclusion bodies were not found and virus studies were not available in the acute stage of the disease. Actually virus studies have rarely been carried out by others. If the etiologic agent is a virus, it does not produce any significant immunity early, which explains the frequency of recurrences. After recurrences, as the patient develops a true immunity he recovers completely from the syndrome without specific therapy.

DIAGNOSIS

The diagnosis of this syndrome rests on the presence of the complete triad and invariably depends on the exclusion of a gonorrheal infection, the extended course and the low response to any therapy. The associated symptoms may be present, as discussed previously.

DIFFERENTIAL DIAGNOSIS

The diseases most often confused with this syndrome are gonorrheal arthritis, rheumatoid arthritis and, less often, rheumatic fever. Differential diagnosis causes little difficulty if one compares the respective cardinal features. These are briefly outlined in the following table.

Other conditions less frequently confused with this syndrome are discussed briefly.

Arthritis complicating bacillary dysentery may be associated with urethritis and conjunctivitis. In these cases one is unable to make the differentiation from this syndrome with present knowledge.

Secondary syphilis might be confused on account of fever, rash and kerato-conjunctivitis. Penile erosions also occur in both diseases but differ in their appearance, time relation to other symptoms and bacteriology. Syphilis could not account for the urethritis.

The occurrence of hematuria in cases of Fiessinger-Leroy-Reiter's syndrome indicates that hemorrhagic cystitis and nephritis, and urinary tract tuberculosis may at times have to be considered as differential diagnostic possibilities.

Behcet's recurrent disease and erythema multiforme are similar to this syndrome. Because of the importance of differential diagnosis between these entities this subject will be discussed in separate papers to be published at a later date.

If the involvement of the eyes is severe (such as neuritis of optic nerve, iritis with hypopyon, blindness and involvement of posterior part of eye) and if the patient is female, Behcet's recurrent disease should be carefully excluded.

If skin, mucous membrane, mouth lesions and constitutional symptoms are severe, erythema multiforme should be ruled out.

PROGNOSIS

In the majority of cases the urethritis and conjunctivitis have been transient, but the arthritis has been persistent. Ankylosis, stiffness and resultant limitation of function have occurred but are unusual. Permanent ocular involvement has not been observed but permanent genitourinary tract involvement rarely has occurred. The average hospitalization was 94 days. Complete recovery, however, usually required more than six months, and 12 months duration was not unusual.

Recurrence takes place in 38.5 per cent of cases. Cases recurring intermittently over fifteen[27] to sixteen[38] years have been recorded. One case of death has been reported,[15] but it is doubtful whether this syndrome caused the death.

TREATMENT

Practically all available types of medication have been tried, but the tendency of this syndrome toward exacerbation and remission has made evaluation difficult. In the treatment of this syndrome penicillin and sulfonamides have been useless. Streptomycin,[56, 59, 68, 72] aureomycin,[56, 59, 72, 74] colchicine,[28] iodides and bismuth have been used with little benefit.

Gold salts have been used with general lack of

TABLE 2

	Fiessinger-Leroy-Reiter's Syndrome	Gonorrheal Arthritis	Rheumatic Fever	Rheumatoid Arthritis
Age and Sex	Usually is disease of young adult males with a peak incidence between 20 and 30 years	Males in ratio 3 to 1, ages, 16-40	Usually is a childhood disease with a peak incidence between 5 and 15 years	Females in ratio 3 to 1. Average age at onset is 35 years
Family History	Nearly always absent	Nearly always absent	Often present	Often present
Genitourinary Infection	Nonspecific uretritis, hematuria, cystitis, prostatitis	Specific urethritis and prostatitis, involvement of epididymis and testis	None	Rarely chronic prostatitis. Urethritis is unlikely.
Characteristic type of arthritis	Acute onset, usually polyarticular, never suppurative, tends to be asymmetrical. Hydroarthritis in 31 per cent. Cultures neg. Knee, ankle, wrist, most often involved	Onset usually sudden, tends to become monarticular often suppurative. The knee, wrist, ankle are most commonly affected. Tenosynovitis occurs more frequently than in any other type of arthritis. Gonococci may be demonstrable on smear and often by culture	Acute onset migratory, polyarticular, transient involvement. The large joints of extremities are most frequently affected	Progressive involvement, usually symmetrical polyarticular, insidious spread to new joint
Characteristic eye lesions	Conjunctivitis (100 per cent) iritis, corneal ulcer	Conjunctivitis in 10 per cent, iridocyclitis, ophthalmia blindness may occur	Almost none	Rarely iritis and conjunctivitis
Characteristic skin lesions	Papular eruptions, keratodermia blennorrhagica (8.5 per cent), oral lesions and genital organs lesions as circinate ulcerations	Purpuric rashes, keratodermia blennorrhagica (only in 3 per cent)	Erythema marginatum or circinatum occurring in about ¼ of childhood cases. Occasionally subcutaneous nodules and erythema nodosum, rarely purpura	Subcutaneous nodules present in 10 per cent of cases, psoriasis occasionally
Cardiac involvement	ECG changes rare, no valvular involvement	Rarely endocarditis occurs, in most cases there is no preexisting valvular damage, if there is, the aortic valvules are the commonest site, but next in order of frequency are the valvules of the right side of the heart	Often ECG changes, endocarditis, myocarditis, valvular involvement are very common findings	Lesions rarely found clinically
Febrile course	Generally low grade fever	Usually shaking chills, high fever	Usually fairly high and sustained	Occasionally low grade remittent
Bacteriologic findings	Nonspecific microorganisms	Gonococci from urethra and joint rarely from blood	A hemolytic streptococci often found in pharynx	Indefinite
Radiographic findings	Osteoporosis (8 per cent) otherwise normal	Destruction of cartilage and articular cortex without decalcification	No bone or cartilage changes, swelling of periarticular soft tissues	Narrowing of the interarticular space, osteoporosis
Characteristic course	Severe in early stage, self-limited, lasting about six months.	Usually severe and destructive may be self limited	Joint involvement mild and may not be present. Heart lesions often very severe	Progressive and destructive, exacerbations and partial remissions are present
Response to therapy	Not affected by antibiotics	Prompt response to penicillin, complete recovery occurs within a few weeks	Salicylates control fever, helpful to joints	No response to antibiotics
Sequelae	Residuals mild	Crippling disease return of normal function of joints is unusual, destruction of joints is common	Heart lesions are persistent and severe	Multiple deformities and ankylosis
Recurrence	38.5 per cent	Rarely occurs	Frequent	Chronic and progressive

success[29, 46, 65] but occasionally with result.[52] Fever therapy has been reported as successful by some authors,[19] especially in the cases with eye complication,[24, 29, 65, 73] but others have reported little or no benefit. In some instances good results have been obtained from the use of sterile boiled milk or other nonspecific proteins.[23, 27] Bichloride of mercury injections for iritis have been useful.[6] Arsenicals have been useful for urethritis but have given doubtful results with arthritis.[28, 37, 39, 42, 43, 58, 74, 84] Novarsobenzol has been used intravenously once or twice a week for not more than eight injections.

The response to ACTH and cortisone has been prompt and dramatic, but withdrawal of the hormones has been followed by relapse of symptoms.[65, 72, 73, 77, 78, 82] In cases of severe arthritic symptoms it may be helpful to continue these drugs in the hope that the syndrome may run its course in a few months.

Symptomatic therapy for the eye and skin lesions is perhaps helpful, as are bland urethral irrigations and hot sitz baths for the genito-urinary infections. Vigorous therapy may be harmful, however, prolonging the natural self-limited course of these infections. Anti-spasmodics are often helpful in relieving the pain in the lower urinary tract. Sometimes rendering the urine alkaline lessens the dysuria.

The most helpful drugs for the arthritic pain are salicylates. A high caloric balanced diet has been found to be useful.

Bed rest should not be prolonged, as muscular wasting often becomes quite severe.

Physical therapy and exercises for the involved joints must begin early to prevent deformities which slow convalescence. Hot baths, baking, massage and properly controlled exercise for the involved parts appear to hasten recovery and prevent residual disability.

SUMMARY

1. The different features of the Fiessinger-Leroy-Reiter's Syndrome are reviewed, and one case is reported.

2. The full name Fiessinger-Leroy-Reiter's Syndrome is proposed for the symptom complex popularly known as Reiter's Syndrome. Since the name "Reiter's Syndrome" is so well established, there is little likelihood that it will be entirely forsaken. Therefore, it is my opinion that it should be linked with the names of Fiessinger and Leroy, the truly original discoverers of this triad. It should then be called "Fiessinger-Leroy-Reiter's Syndrome."

3. This syndrome is a clinical entity.

4. The etiology of this syndrome remains obscure. It is suspected to be a virus.

5. The portal of entry for the etiologic agent is most probably the urogenital tract.

6. As long as the etiology remains obscure the diagnosis of this syndrome should not be made in the absence of all three symptoms of the classical triad. It should be kept in mind, however, that the appearance of the full triad may take as long as ten years.

7. The classical triad listed in order of severity is as follows: (a) arthritis, (b) nonspecific urethritis, and (c) eye involvement.

8. Time of onset of the classical triad is as follows: (a) urethritis first, followed by (b) conjunctivitis, and (c) arthritis usually appears last.

9. Recurrences occur in 38.5 per cent of patients. In remissions the characteristic triad may not all be present.

10. The prognosis for life is good. Complications are infrequent but may be severe.

11. Treatment is largely supportive and should be conservative.

12. This syndrome is not limited to any one geographic location.

13. The syndrome occurs in young adult males with a peak incidence between the ages of 20 and 30 years.

14. If the involvement of the eyes is severe (such as neuritis of optic nerve, iritis with hypopyon, blindness and involvement of posterior part of eye) and if the patient is female, Bechet's recurrent disease carefully should be excluded.

15. If skin, mucous membrane, mouth lesions and constitutional symptoms are severe, erythema multiforme should be ruled out.

16. On the basis of clinical evidence, it is suggested that involvement of the central nervous system may occur, although it has not previously been reported as such.

17. It is assumed that the incidence is more frequent than appears in the literature.

Acknowledgement: I wish to express my gratitude to Dr. R. O. Muether for his suggestions and encouragement, to Dr. F. Romney for her valuable revisions of the manuscript, and to Dr. E. Leonhardt for his translations of German articles.

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ANESTHESIOLOGISTS TO MEET

The annual meeting of the Missouri Society of Anesthesiologists will be held Sunday, March 30, at the Congress Hotel, Union and Pershing Avenues, St. Louis. A business meeting will be held at 10:00 a.m., with a luncheon at 12:00 noon. Tickets may be obtained by contacting J. J. Merz, M.D., Faith Hospital, St. Louis. The scientific program to be presented at 1:00 p.m. follows:

"Toxicity of Local Anesthetics," John Adriani, M.D., New Orleans.

"Recent Developments in the Pharmacology and Clinical Application of Muscle Relaxants," F. F. Foldes, M.D., Pittsburgh.

Panel: "Balanced Anesthesia."
Moderator: Kenneth K. Keown, M.D.
Panelists: John Adriani, M.D.
F. F. Foldes, M.D.
Oral B. Crawford, M.D.
Robert B. Dodd, M.D.

AMA TAX BOOKLET

The AMA Law Department has a new booklet, *The Federal Income Tax Guide for Physicians,* which answers some of the most perplexing tax problems. This booklet has been compiled from court decisions as well as rulings, regulations and publications of the Internal Revenue Department. It has been designed to give physicians a better understanding of their rights and obligations under federal income tax laws. The Law Department advises that the booklet is not a substitute for the services of a personal tax advisor, however.

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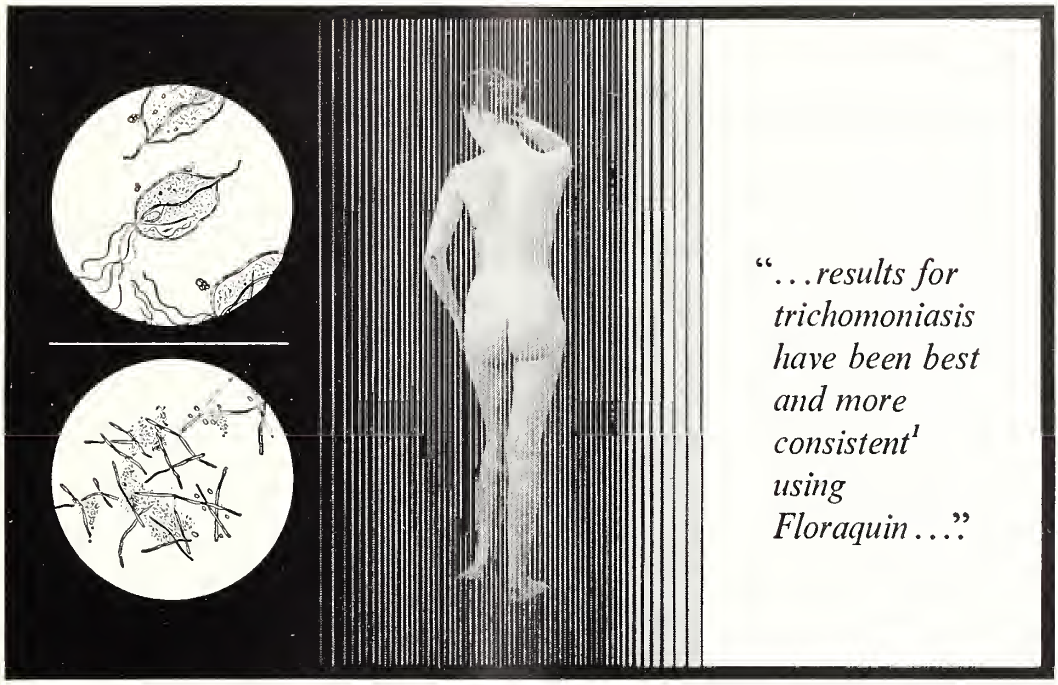

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Pitt[1] recommends vaginal insufflation of Floraquin powder daily for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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SEARLE

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Case Report

Heart Disease in Sickle Cell Anemia

LEO TRUNKO, M.D., *St. Louis*

SICKLE CELL ANEMIA is the most common anemia observed today in which the degree is intense enough, and of sufficient duration, to produce cardiac symptoms. It has been reported that, in Negro patients, heart disease due to this cause is more frequent than that due to pernicious anemia, myxedema, periarteritis nodosa, beri-beri or trauma. Of special importance is the frequency with which cardiac findings due to sickle cell anemia are interpreted as being due to rheumatic or congenital heart disease.

A case history is presented of a patient with sickle cell anemia in whom various findings were manifested at different stages of his disease.

CASE REPORT

A 23 year old Negro male was known to have had sickle cell anemia from the age of 10, requiring from four to six blood transfusions a year. At times, throughout his disease, he would be seen with attacks of pain in the joints and extremities, abdominal pain, fever and leukocytosis. He was treated many times for acute follicular tonsillitis. An apical systolic murmur was noted, but no signs of cardiac decompensation. In October, 1955, he was admitted to the hospital in a sickle cell anemia crisis.

Physical examination revealed a tall, thin, Negro male in acute distress complaining of aching leg pains and cramping abdominal pains in the right upper quadrant. Temperature was 100.8 F., pulse 100 regular, blood pressure 120/70, respirations 28.

Generalized nontender enlarged axillary, cervical and inguinal lymph nodes were palpable. A few scattered crepitant rales were heard in the base of the left lung. The heart was enlarged to the left on percussion, with the PMI diffuse and forceful located in the 6th ICS, 12 cm. from the MSL. A grade 3 systolic murmur was heard at the apex and transmitted to the axilla, also a grade 2 diastolic murmur was heard medial to the apex. The rhythm was regular. The abdomen revealed diffuse guard and tenderness, the liver edge was palpable. No signs of peripheral edema were present.

Laboratory Data—Red blood cells 3.2 million, Hgb. 9.8 gm., Hematocrit 37; MCV 116, MCH 30, MC Hgb. Conc. 26, Sickling test positive; white blood count 15,350. Differential, juvenile 4, stab 9, segmented 60, lymphocytes 27; sodium 142, potassium 4.5, chlorides 112. (m.eq./liter); VDRL negative; urine, specific gravity 1.015, albumin 2+, Urobilinogen positive.

X-ray of the chest showed accentuation of the bronchovascular markings with cardiomegaly. The electrocardiogram revealed right ventricular hypertrophy, sinus tachycardia and myocardial change.

Clinical Course—On the second day of admission, while receiving a blood transfusion, the patient complained of precordial pain and dyspnea. Examination revealed a rapid pulse with gallop rhythm, and signs of pulmonary congestion. He was rapidly digitalized and placed on oxygen, after which he improved.

Later, during his hospital stay, this patient was studied extensively.

X-ray and fluoroscopy with barium swallow revealed left and right ventricular hypertrophy but no left atrial enlargement.

Pulmonary function studies revealed a vital capacity 50 per cent of normal, maximum breathing capacity 46 per cent, residual air volume 60.8 per cent.

Cardiac catheterization showed a markedly elevated pulmonary artery pressure of 85/40 mm. Hg. which rose to 102/48 with exercise. The pulmonary wedge pressure was 13.

Cardioscope—Tape recordings made on the Cambridge electron cardioscope revealed a loud, snapping mitral first sound, with a high pitched apical systolic murmur. A low pitched rumbling apical diastolic murmur was heard and, in addition, a presystolic third heart sound. The pulmonic second sound was accentuated.

About two months subsequent to the described hospitalization, this patient was admitted to another hospital where he expired after a two day episode described as acute congestive failure. At autopsy, the heart was found to weigh 450 grams, with dilatation and some hypertrophy of both ventricles. The endocardium was found to be normal, as were the valve leaflets with no scarring nor deformities. The lung sections showed thickened pulmonary vessel walls and some fibrosis of lung parenchyma.

DISCUSSION

Sickle cell anemia, in crisis, may often be confused with acute rheumatic fever; actually, however, the concurrence of the two diseases is rare. The histories are often similar. In both, an upper respiratory infection may precede the complaints, followed by headache, epistaxis, chest pain, exertional dyspnea, palpitation, abdominal pain, fever and leukocytosis. Both may show migratory hot swollen painful joints. The cardiac findings may be similar with enlargement, tachycardia, systolic and diastolic murmurs, failure and gallop rhythm, third heart sounds, and a prolonged P-R interval. However, in differentiating from acute rheumatic fever, one finds that in sickle cell anemia the extremity pain is not localized to the joints, but also involves the long bones, and is due to subperiosteal reaction; in addition the pain does not respond to salicylates. The sedimentation rate is usually not elevated. The cardiac murmurs are functional in nature, on the basis of chamber dilatation and the

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From the Department of Medicine, St. Louis University. (Based on investigations made while National Heart Institute Trainee in Cardiology.)

excessive rapid flow found in high output type failure, and not on the basis of pancarditis with edema and deformity of the valve leaflets as found in acute rheumatic fever. The prolongation of the P-R interval is felt to be due to the increased vagal tone which is a compensatory mechanism for the chronic anoxemia associated with the anemia. Of course, the most important differential point is the presence of the sickling phenomena.

Later on, as the anemia becomes more chronic, the patient may present himself, as the case described, with findings simulating chronic valvular rheumatic heart disease. Heart disease due to sickle cell anemia is often confused with rheumatic heart disease since both conditions may produce similar murmurs, which usually become manifest in early adulthood. Sickle cell anemia should always be looked for and investigated in any young Negro with symptoms or signs thought to be due to either congenital or rheumatic heart disease. The opposite situation also may exist; a patient with known sickle cell anemia may present himself with symptoms and signs simulating chronic valvular rheumatic heart disease. The latter situation existed in the case presented. Here was a young Negro patient in marked congestive failure with cardiac enlargement, accentuated pulmonic second sound, an apical diastolic murmur and a past history, of many years, of recurring fever and joint pains. However, in differentiating this case from rheumatic heart disease, cardiac fluoroscopy with barium swallow did not reveal the left atrial enlargement usually found with mitral stenosis. In addition, the electrocardiogram did not reveal the broad peaked P waves usually found with atrial pathology. Cardiac catheterization revealed an increased pulmonary artery and right ventricular pressure, but a pulmonary wedge pressure much lower than that usually found in pulmonary hypertension due to mitral stenosis. This case, then, actually was that of pulmonary hypertension and chronic cor pulmonale, the most common terminal state of long standing chronic sickle cell anemia. The cor pulmonale usually develops secondary to the pulmonary hypertension resulting from disseminated occlusions of the small pulmonary vessels due to thromboses, obliterative endarteritis, medial hypertrophy and, in many cases, actual plugging of the arterioles with sickled erythrocytes.

The mitral diastolic murmur heard in this situation is thought to be due to myocardial weakness and dilatation, which creates a relative mitral stenosis, wherein the mitral ring does not stretch as much as the ventricular chamber dilates. This is the finding usually demonstrated at autopsy in those patients who display mitral diastolic murmurs during life, and yet at pathologic examination usually do not show scarring or actual deformity of the valve leaflets.

SUMMARY

Sickle cell anemia often presents as a picture of acute rheumatic fever, with migratory joint pain and swelling, fever, leukocytosis, cardiac enlargement, conduction defects and systolic murmurs.

Sickle cell anemia also may simulate chronic valvular rheumatic heart disease with a diastolic mitral murmur, third heart sound, right heart enlargement and congestive failure. The factors involved in these manifestations and the differential diagnosis are discussed.

Congestive heart failure not responding to digitalis is common in the terminal stage of sickle cell anemia. This usually represents long standing cor pulmonale, with pulmonary hypertension due to the pulmonary vascular occlusion associated with this chronic anemia.

1900 Telegraph Rd.

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Cardiac catheterization was done by J. Gerard Mudd, M.D. The tape recordings were made by Donald Bussman, M.D.

A.M.A. OFFERS MORE MEDICAL PRACTICE BOOKLETS

Additional copies of the booklet—"A Planning Guide for Establishing Medical Practice Units"—currently are available from the American Medical Association to state and county medical societies for use on a loan basis to individual physicians. Edited by the A.M.A. and published through a Sears-Roebuck Foundation grant, this booklet originally was distributed to medical societies on a limited basis. However, if the copies now on file in medical society libraries have been mutilated or destroyed, requests for additional copies may now be filled. Requests should be directed to the A.M.A.'s Council on Medical Service.

KANSAS CITY PATHOLOGIST HONORED

Friends of Dr. Ferdinand C. Helwig honored his 35-year career as a pathologist in the Kansas City area at a dinner in his honor January 5 at the Hotel President in Kansas City. More than 400 persons attended.

Dr. Helwig, who has spent most of his career at St. Luke's Hospital, started at a time when few hospitals in the Kansas City area had a full-time pathologist.

He obtained his M.D. from the University of Kansas City Medical School in 1922 and completed most of his study of pathology at the school after a year of microscope training at the University of Berlin.

Dr. Helwig was president of the Jackson County Medical Society in 1939. Since 1931 he has been program chairman for the Kansas City Academy of Medicine.

Special Article

Report of Committee on Maternal Welfare, 1956

KENNETH S. NICOLAY, M.D., *Kansas City*

As HAS BEEN the custom in recent years, the Committee on Maternal Welfare is, again, presenting the summary of statistics concerning maternal deaths in Missouri during the past year. The Committee's fiscal year is from November 1, 1955, to October 31, 1956. Only cases under the care of regular doctors of medicine in the state of Missouri are reported. The state is divided into Eastern and Western divisions and committees from St. Louis and Kansas City review cases from their respective areas.

Admittedly the analyses are hindsight, frequently based on scant and inadequate information. Lack of information, of course, is not the fault of the reviewing physician, but of the doctor whose case is being reviewed. Also all cases are arbitrarily weighed and measured against the theoretically ideal situation which in many places does not exist. However, unless one works toward a perfect set of circumstances in which all mothers can deliver their babies, there will be neither progress nor improvement in these tragic statistics year in and year out. Therefore, some of the decisions are arbitrarily harsh on the attending physician, his hospital, or even his patient, as the theoretically perfect situation does not exist in either the rural crossroads or urban medical center.

To clarify terminology used in the statistical portion of this report, a few definitions should be given. A maternal death is one occurring in any woman pregnant at the time, or having been pregnant within the preceding six months. These are further subdivided into obstetric and nonobstetric death. A nonobstetric death is one in which the cause of death is not related to pregnancy, e.g., auto accidents, homicide, brain tumor, bulbar polio, or situations and diseases in which death would have occurred irrespective of pregnancy. An obstetric death is one occurring during pregnancy, labor, delivery, or the puerperium, in which the patient's death would not have occurred had the patient not been pregnant.

TABLE 1

MATERNAL DEATHS, STATE OF MISSOURI, 1956

5.9 Per 10,000 Live Births	
Total Maternal Deaths	56
Not Reviewed	5
Indeterminate Cause	2
Deaths Metropolitan Areas	46
Deaths Outstate	10
Autopsies	32 (57.1%)

In 1956 the committees of the St. Louis and Kansas City Gynecological Societies investigated fifty-six maternal deaths. In two cases the information was so meager that it could not be determined if these were obstetric or nonobstetric deaths. Therefore, they are included in only the total number of deaths. In five cases the review is as yet incomplete. This leaves forty-nine deaths to be discussed in this report.

The total of fifty-six deaths occurred geographically, as follows: Forty-six of these occurred in the metropolitan area of St. Louis, St. Joseph, Springfield and Kansas City; ten occurred in the remainder of the state. A crude interpolation of the available figures shows that the death rate per number of live births is not materially different in the city or in the country. There is a higher death rate among Negroes, though this is more a socio-economic phenomenon than any indictment of the doctors responsible for their care. The so-called "bootheel area" this year had a much improved record. The St. Louis committee feels that the doctors in this area should be congratulated. The total maternal death rate of 5.9 per 10,000 live births compares favorably with the country as a whole which was last reported to be 6.1 per 10,000 live births.

TABLE 2

NONOBSTETRIC DEATHS

Nonobstetric Deaths	14
A. Ruptured Splenic Artery	
B. Acute Poliomyelitis	
Landry's Ascending Paralysis	
Meningitis	
C. Chronic Glomerular Nephritis With Uremia	
D. Acute Myocarditis	
Coronary Thrombosis	
Cardiovascular Accident	
Cardiac Arrest	
E. Leukemia	
F. Adenocarcinoma of Pancreas	
G. Gunshot Wound: Homicide (1) Suicide (1)	

Of the forty-nine deaths under discussion, fourteen were nonobstetric. Thirty-five, or 73 per cent, were obstetric deaths. In this latter group, these women presumably would all have been alive today had they not become pregnant.

In the breakdown of the nonobstetric deaths there were such conditions as ruptured splenic artery, poliomyelitis, Landry's ascending paralysis, meningitis, glomerular nephritis, acute myocarditis, coronary thrombosis, cardiovascular accident, cardiac arrest, adenocarcinoma of the pancreas, leukemia, and two gunshot wounds. One of the latter was homicide, the other suicide.

The obstetric deaths are divided into preventable and non-preventable deaths. Here is the greatest hurdle the committees have to cross. Even though the committee members agree that under the circumstances their own performance would have been no better, the patient might have been

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Secretary, Western Section, Maternal Welfare Committee.

saved under other circumstances, therefore the deaths were preventable.

TABLE 3

OBSTETRIC DEATHS

Nonpreventable	7
Ruptured Ovarian Cyst With Hemorrhage	1
Hypertensive Encephalopathy	1
Amniotic Fluid Embolism	2
Pulmonary Embolus (Post C. Section)	2
Spontaneous Rupture Uterus	1

The nonpreventable deaths, seven in number, include the following conditions: There was one ruptured ovarian cyst with massive intra-abdominal hemorrhage; one hypertensive encephalopathy, one spontaneous rupture of the uterus with death ensuing in a few minutes, and two amniotic fluid embolism of which, there was, of course, no chance to save the patient. Two patients died of embolic phenomenon following Cesarean section. By analysis, in neither case was the surgery justifiable. Nevertheless, they were labeled nonpreventable on the basis of the embolic phenomenon. In nonobstetric deaths, no assignment of preventability is made.

TABLE 4

OBSTETRIC DEATHS

Preventable	28
1. Hemorrhage	
A. Rupture Ectopic Pregnancy	3
B. Rupture Uterus	4
C. Premature Separation Placenta (2 With Afibrinogenemia)	5
D. Uterine Atony	3
E. Placenta Praevia	1
F. Post-op. (C. Section) Incisional Hemorrhage	1
G. Spontaneous Rupture Utero-Ovarian Vein	1
2. Toxemia (Eclampsia)	1
3. Anesthesia	2
4. Infection (1 Induced Criminal Abortion)	2
5. Other Causes	
A. Acute Heart Failure	2
B. Acute Gastric Dilatation	1
C. Pulmonary Embolus	1
D. Intracranial Hemorrhage Due to Ergot Induced Hypertension	1

The preventable obstetric deaths were twenty-eight, or 80 per cent, of the obstetric deaths. Of the twenty-eight, eighteen, or 64 per cent, were due to hemorrhage. In other words, this cause alone is more than twice all other causes combined. This repeats the morbid statistics of other years. The red deluge continues in Missouri. These statistics compare unfavorably with other states in this respect.

The deaths due to hemorrhage were divided as to cause as follows: Three deaths were due to ruptured ectopic pregnancy; there were four ruptured uteri, one was associated with malignancy, one was spontaneous in a grand multipara, two were in patients who had had previous Cesarean sections. As is so frequently true, the previous Cesarean sections, on the basis of history, probably should not have been done, though that is not the reason for assigning these as preventable deaths. There were five deaths from hemorrhage associated with abruption of the placenta, two of which had associated hypofibrinogenemia. There were three deaths from hemorrhage due to uterine atony (?) at the time of delivery. There was one each of placenta previa, postoperative Cesarean section incisional hemorrhage, eclampsia, and spontaneous rupture of the utero-ovarian vein in labor. There were two deaths due to anesthesia, one following spinal, the other inhalation. There were two deaths due to sepsis, one of which followed criminal abortion. Successful prosecution of the abortionist followed. There were five miscellaneous causes, including two acute heart failures, and one each of acute gastric dilatation, pulmonary embolus, and intracranial hemorrhage due to ergot induced acute hypertension.

TABLE 5

ASSIGNMENT OF CAUSE

Assignment to Doctor	18
Judgment	18
Technic	3
Negligence	3

In each preventable death assignment of cause must be given to doctor, hospital, or patient. In eighteen of the twenty-six cases the doctor was judged responsible. In all eighteen of these cases physician's judgment was indited, usually on the basis of failure to recognize the complication and/or the seriousness of the complication. In two of these cases his actual management was considered to be at fault. In three cases the physician was assumed to have been negligent. These involved either actual abandonment of a critically ill patient, or willful procastination in instituting therapy. The committee also feels that failure to secure consultation of any kind constitutes a form of neglect. Specifically, the cases involved were as follows: Failure to diagnose intra-abdominal bleeding; acute gastric dilatation, and afibrinogenemia; inadequate concern over prolonged rupture of the membranes in two cases, and a previous Cesarean scar; for operating an obstetric clinic without adequate provisions for hospitalization of complicated cases; not being in attendance with critically ill patients which occurred in two cases; failure to recognize complications; failure to call for consultation; and, lastly, failure to perform even a rudimentary physical examination or laboratory studies on a seriously ill patient.

TABLE 6

ASSIGNMENT OF CAUSE

Assignment to Patient	9
No Prenatal Care	6
Lack of Cooperation	0
Ignorance	3
Criminal Abortion	1

In nine cases assignment was made to the patient for failure to seek prenatal care in six, ignorance in three, and a criminal abortion in one. There was no assignment on the basis of lack of cooperation.

In seven cases the hospital, itself, was deemed assignable. These involved inadequate nursing staff and records; lack of available whole blood for transfusions; inadequate delivery room facilities necessitating a fatal delay in admission of a patient to the hospital; inadequate facilities for administration of anesthesia; and failure to enforce existing rules governing consultation in an adequately staffed metropolitan hospital. In one case assignment was made to other personnel in an instance in which the husband failed to call for medical aid for more than five hours after patient had requested him to do so. There is some overlapping of the figures, as in some cases assignment was made under more than one category under the broad heading.

It was arbitrarily decided not to again raise the eternal subject of death due to hemorrhage. As most of these deaths, if not all, are preventable, and since 64 per cent of our preventable deaths were due to this cause, it is hard to completely ignore this fact. Missouri doctors have little to be proud of that so many mothers drowned in the red deluge.

This year toxemia was selected as the topic on which to focus attention. This seems somewhat ridiculous when there was only one death attributable to this disease this year. However, rest assured the disease has not disappeared and undoubtedly it will be a number of years before such an impressive record will again be compiled. Actually, a closer scrutiny of this year's figures reveal that toxemia probably played a role in a number of this year's fatalities. The actual cause of death may have been listed under another heading. For example, there were five deaths due to abruptio and hemorrhage. Many feel that most all, if not all, premature separation of the placenta is a manifestation of toxemia. Neither does one have to return too far in the past reports to find sizeable number of deaths in Missouri due to toxemia. The problem here is one of not taking advantage of the warning symptoms given by this disease. It is recognized that a small percentage of these patients exhibit no premonitory signs and may be quite well one day and dead within forty-eight hours, in spite of heroic terminal therapy. Until the cause of eclampsia is found, which will, of course, lead to its prevention, some of these patients will continue to be lost.

Too many others have a preliminary stage, sometimes quite prolonged, with a mild or moderate elevation of blood pressure, slight or moderate albuminuria, with fluid retention. In reviewing the cases of toxemia, time after time these signs were noted, ignored or minimized, only to have a fatal outcome due to lack of early therapy. Even so, heroic therapy of these critically ill patients results in, at least, a live mother. In reviewing these cases, again, time after time the doctor was always behind the course of the disease with his therapy. Anti-hypertensive drugs are of little value after the cerebral hemorrhage. Sedation is more effective prior to the convulsion. All too often the more recent methods of treatment with anti-hypertensive drugs and other conventional methods are just not being employed.

A patient with toxemia is not only potentially a critically ill patient, but must be considered a grave problem until she is well into her puerperium. These patients do poorly on skillful neglect.

Few have the wisdom to determine in advance which patient will deteriorate from mild preliminary symptoms to eclampsia. Therefore, many patients will receive unnecessary alarm and therapy for the benefit of the few. Until more is known of this disease this is the way it must be.

Rather marked "unofficial" opposition to the activities of the Maternal Welfare Committee came to light last year when the Missouri State Maternal Welfare Committee attempted to place before the state association some recommendations. Since this opposition was founded on rumor and misinformation, it is felt that the aims and purposes of the Maternal Welfare Committee should be reiterated.

Most important, it is not a policing organization —it has no power to judge or recommend any punitive action. It is not seeking mistakes or errors in management of an individual case, except to summarize at the end of a period of survey the number of "preventable" deaths.

The Committee has only two functions: (1) To review the maternal deaths under the care of regular doctors of medicine in the State of Missouri. (2) To analyse this material and utilize it for educational purposes in an attempt to decrease maternal mortality.

Scientific programs for county societies, based on this material, have been and will continue to be presented whenever requested.

Lastly, over a period of time certain trends become apparent in which the Committee feels that recommendations should be made to hospital staffs concerning obstetric practice. These are designed solely to reduce maternal mortality and for no other purpose.

Each case presented to the Committee has all identifying material deleted and only the medical problem at hand is presented and discussed. The Committee keeps no permanent records, except those used for published statistical studies, such as the number of cases of hemorrhage, the number that were preventable, and such. Abstracts of cases containing the skeleton medical facts of the cases are kept for use in scientific programs, but there is no way to refer back to any particular case in question as all other information is destroyed.

Many times the Committee is forced to arrive at conclusions which may or may not be absolutely accurate due to lack of necropsy material. It is strongly urged that autopsies be secured on all maternal deaths. Here, also, the presence of the attending physician at the meeting would be of great help.

All meetings are open to the profession and are always interesting and educational. Guests are asked to take part in discussions.

It is the Committee's hope to place before the State Association some recommendations based on the experiences of the Committee since its inception. It is hoped that these recommendations can be utilized in any community. They are quite broad in scope and it is suggested that each hospital adopt such parts of these recommendations as are applicable to its own situation.

Admittedly, these recommendations in their entirety would apply only to large medical centers with rigidly departmentalized staffs. However, there are individual recommendations which might be utilized by any hospital, regardless of the size of the staff. They are designed with only one purpose in mind, to reduce maternal mortality. In general, they recommend that more than one doctor share the responsibility of managing certain complications of the obstetric practice, and that the hospital, itself, assume certain responsibilities to the obstetric patient.

Since the majority of maternal deaths are preventible by ordinary standards of medical care, there is still much to be done. It is hoped that some day soon, activities in the sphere of maternal welfare will become superfluous from lack of material. The next great challenge of fetal mortality must be met in the near future. With continued cooperation the millennium may arrive someday.

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MEDICARE COSTS 43 MILLION DOLLARS

The military's medicare program paid more than 300,000 physicians' bills amounting to 22 million dollars, and over 200,000 civilian hospital bills totaling 21 million the first year of its operation.

While the combined total of 43 million is considerably under the estimated 76 million a year, the Office of Dependent's Medical Care said there is a backlog of claims.

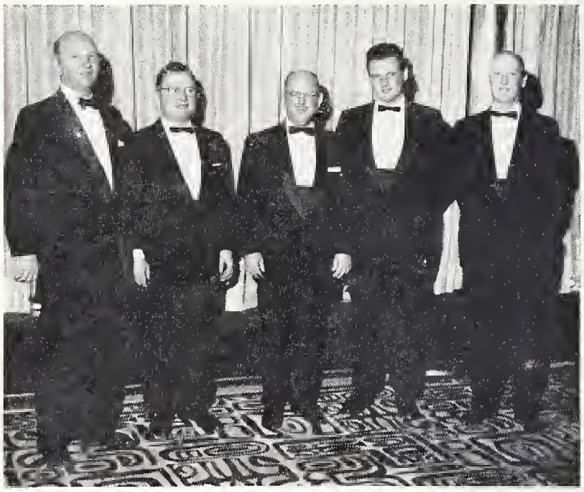
Administrative costs for the first year ending December 7 was about 3 per cent, which a spokesman said was just about "on the button."

Almost 40 per cent of medicare patients have been maternity cases. The Air Force leads the services with 41 per cent of eligible dependents participating; then the Navy, with 32 per cent; Army, 25 per cent, and Public Health Service, 2 per cent.

Missouri Academy of General Practice

(Continued from page 208)

On the evening of December 7, the St. Louis Academy held its annual Installation of Officers at a dinner dance at the Chase Hotel, St. Louis, with approximately 200 people in attendance. Dr. Walter Gray took over the reins of the Chapter from retiring president, Dr. Walter Gunn.



New officers of the St. Louis Academy for 1958 are Drs. V. E. Michael, treasurer; E. V. Henschel, secretary; Walter C. Gray, president; E. W. Hall, vice president, and C. A. Molden, president-elect.

The midwinter dinner meeting of the Greater Kansas City Academy of General Practice was held February 22 at the Wishbone Restaurant. Plans are in progress for a special train from Kansas City to Dallas for the clinical meeting. This meeting is to be held in conjunction with the Southwestern Clinical Society.

AAGP TENTH ASSEMBLY AT DALLAS

The tenth Assembly of AAGP will be held at Dallas on March 24 to 27 in the Dallas Memorial Auditorium. There will be fourteen major presentations on the scientific program. Other highlights of the meeting will be the MUSE (Minimum Uniform Standards of Education) committee report to the House of Delegates; concert by the Dallas Symphony Orchestra on March 25; complimentary luncheon for Century Club members at Embassy Room, Statler Hilton Hotel, and chapter functions on Monday evening.

Therapeutic Nutrition in Chronic Disease

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Whether the eventual solution of the problem of atherogenesis will come out of the field of dietetics, biophysics, or pharmacology, one fact remains undeniable:

Adequate protein nutrition is considered of importance for the age group most commonly affected by disease of the vascular system, so that the demands of good nutritional health might be met.

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In addition, it is an excellent source of B vitamins, including B_6 and B_{12}, as well as iron, phosphorus, potassium, and magnesium.

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President's Page

The coming 100th Annual Session of the Missouri State Medical Association offers a program of vital interest to every physician in the state. Now's the time to start arranging your schedule so you will be able to attend April 13-16 in St. Louis.

As always, there will be many scientific meetings. The basic idea of last year's sessions in Kansas City, which proved highly successful, has been followed in planning this year's program. There will be two mornings of scientific instruction courses. You have already received a folder from the Association outlining the details of this program.

In addition—and in its way just as important—there are meetings scheduled on various socio-economic problems confronting the medical profession. Throughout the nation, state medical associations are finding their annual sessions invaluable in presenting these problems to their members, and determining the policies which will lead to the greatest benefit of our profession and the people we serve.

The House of Delegates, made up of your elected representatives, sets the policies of the Missouri State Medical Association. However, all MSMA members are invited to take part in these discussions at the House meetings and the various reference committees. Without your help, your representatives cannot know what course you wish to follow. Here are some of the socio-economic problems facing this convention:

(1) *Medicare.* Major General Paul I. Robinson of the Surgeon-General's office will come from Washington to review the program at a general meeting Monday, April 14. Robinson heads the administration of Medicare for the Department of Defense.

(2) *Vendor program.* Your help will be needed to formulate a policy on this controversial medical care program for public assistance recipients in Missouri.

(3) *Blue Shield.* Current Blue Shield policies will be examined, including the six new benefits, and how the over-all program affects physicians.

(4) *Single licensure legislation* will be thoroughly discussed, and a program charted for the coming year.

On the social side, the annual banquet in honor of past presidents will be held Tuesday night, April 15. We are happy to have as our speaker, president-elect Gunnar Gundersen of the American Medical Association.

All in all, we hope this will be the finest session in Missouri State Medical Association history. Make your plans now—and I hope to see you in St. Louis in April.

Walter S Sewell M.D.

EDITORIALS

Subtle Rebuttal

Columnist Jim Bishop recently took after medicine in general—and physicians in particular—in his February 4 article in the St. Louis *Post-Dispatch*. Whatever Bishop's motives were, his logic and facts are certainly open to dispute.

For a start, Bishop tells how the surgeon who attended Abraham Lincoln the night of his death held his hand but sent no bill. Skipping to 1958, he comments:

"Today, there are 200,000 doctors in the United States. It is doubtful if many of them would think of holding a dying man's hand. Practically all of them would send a bill for services rendered."

Bishop explains that while he is not "opposed to the average doctor," he is opposed to the doctors who pretend to be on a sacred mission in life while gouging the poor for all the traffic will bear.

He uses for an example the case of Artie's wife who was in the hospital a week for breast surgery. Artie's bill, so far, according to Bishop:

"Sixty dollars for an anesthetist; $90 for use of operating room; $18 a day for semi-private room; $5 for 'special' attention; $8 a day for drugs.

"Artie loves his wife. He will not argue about the bill. If it was $1,000, he'd go out and get a loan to pay it. And it is exactly here—in the field of love—that the doctors do their most *merciless operating*." (Italics ours.)

Bishop continues: "Artie hasn't got a bill for surgery yet. He will. It can range anywhere from $200 to $750. There is no 'fair' price. The surgeon can charge whatever he pleases."

After this broadside, Bishop switches to Artie's own quotes about the hospital:

"The thing I can't understand, he (Artie) says softly, 'is that this hospital has two or three drives for money each year. All of us give. Thank God we're able to give. The hospital is always full. Some of the patients have to sleep in the halls. With a business like that, how come they're always losing money and they have to start new drives for funds?' "

Echoing Artie's very thoughts, Bishop says that he too doesn't understand how "it is economically possible for any institution to do a near-capacity business and still lose money." He notes that the "technicians and the orderlies and interns and cooks in any hospital are among the most underpaid in the world." Plus the fact hospitals are administered tax free, he adds.

The above remarks by Bishop, undoubtedly, will draw many answers, but none better than the one sent to the *Post-Dispatch* February 6 by Joseph B. Kendis, M.D., Medical Editor of the Saint Louis County Medical *Bulletin*. He writes:

"You (Bishop) mention the physician of 93 years ago. Since his day the practice of medicine has undergone many changes. Changes which have helped you and countless others to live longer, healthier and happier lives. Perhaps, had Mr. Lincoln's doctor 93 years ago had the knowledge and facilities of today's physicians, he might not have had to sit by and hold his patient's hand and Mr. Lincoln might have lived on.

"It was my impression that prior to doing an article a writer first does research on his subject but it appears that your research was limited to one case. Imagine, if you will, how little progress medicine would make if our research was so limited. Instead, in medicine research will take months, or even years studying all facets of a problem prior to releasing final information. And such research is extremely costly in equipment, material, and time. Time perhaps sometime paid for, but sometimes not paid for and freely given in cases too numerous to count.

"Now, as to fees. You mention a number of charges such as for room, operating room, special attention and drugs. Over such charges the physician has no control. These are hospital charges. True they have risen markedly, being almost four times what they were in 1936. Is this due to profiteering or inefficiency? Indeed not!

"Back in 1936 the average hospital had one employee for each patient, but today there are over two employees for each patient. And understandably these employees are much better paid today. Also in the complex operation of today's hospital, far more (and expensive) equipment—surgical, medical, laboratory and so on—must be purchased and maintained. *U. S. News and World Report* (July 5, 1957) states that the average patient pays the hospital $22.40 per day, but the same patient costs the hospital $24.15 per day.

"Now what about the doctor's bill? You speak of high fees, yet you yourself state that it costs $50,000 to educate the average doctor today and set him up in practice. And you do not mention the fact that the same doctor will start in practice about ten years later than his old friends who started in other fields, thus shortening his life earning period by these same ten years. In spite of this doctors' fees have risen less than the general cost ol living, having gone up just 78 per cent since 1936 while the general rise was 101 per cent.

"What should your friend Artie have done? My suggestion would have been that he should have talked to the doctor before the operation and should have asked plainly and simply what the fee would be. You may not be aware of it, but the American Medical Association urges all doctors to inform their patients that they are happy to discuss their fee at any time.

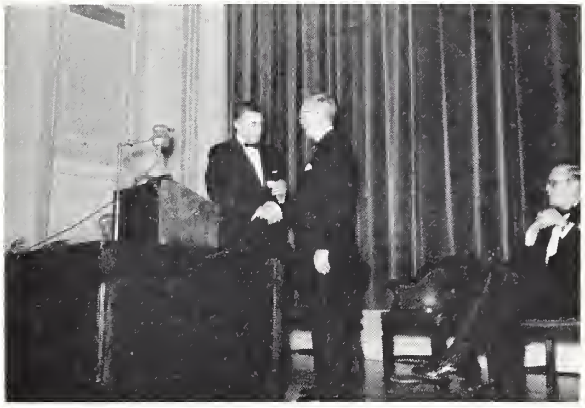
"Jim! There may be unscrupulous doctors just as there are unscrupulous lawyers, businessmen, politicians, yes, and even writers. But by and large as with people in these other fields, the average physician is today (as even 93 years ago) devoted to his healing art as evidenced by the time he spends working at it and by how cautiously he guards the health of each of his patients, be they business tycoons or patients in a free clinic."

Musings of the Field Secretary

The One Hundred Twenty-Third Annual Meeting and Installation of Officers of the St. Louis Medical Society was held at the Society's headquarters building, Tuesday evening, January 7.

Dr. Arthur W. Neilson was installed as president and took over this office just 30 years after his father, Dr. Charles H. Neilson, was installed as head of this Society. The occasion marked the third time in the Society's 123 years existence that a son has followed his father as president.

Dr. Neilson gives President's address.



Dr. Neilson presents Past President's key to Dr. Furlow.

New and outgoing officers formed a receiving line.

The reception was well attended.

Other officers installed were Dr. Robert B. Bassett, president-elect; Dr. David N. Kerr, vice-president; and Dr. John P. Eberle, secretary. New Councilors installed for a three-year term included Dr. Walter T. Gunn, Dr. Walter Baumgarten, Jr., Dr. George E. Thoma, Jr., and Dr. Myron W. Davis. Dr. Leonard T. Furlow is the retiring president of the Society and received a past president's key from Dr. Neilson. Following the formal installation proceedings a receiving line led into more informal activities for the evening including food, refreshments, music and "old-time" visiting in the banquet hall.

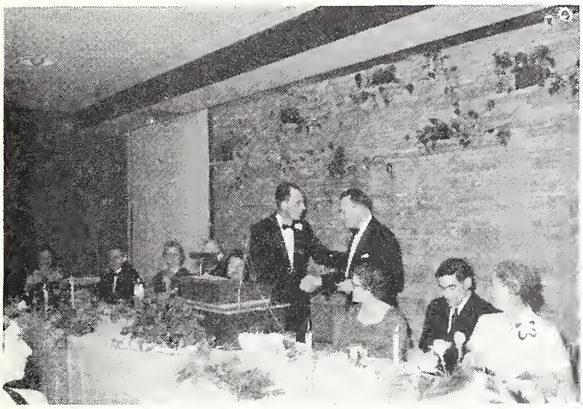
The St. Louis County Medical Society held its annual Installation Dinner Dance at Le Chateau, Wednesday evening, January 8. This gala affair began with a the social hour, then dinner and installation of officers, followed by dancing.

Dr. Walther gives President's address.

Dr. Roy A. Walther, Jr., outgoing president, turned over the gavel to the new president, Dr. Emmett B. Drescher, and wished him well. It is customary in this Society for the outgoing president to receive a ceremonial gavel from the preceding past president. Dr. Walther was presented this particular gavel by Dr. James F. Dowd, Jr. A number of guests were present and introduced by Dr. Walther in his beginning remarks. Music and dancing seemed to furnish an ideal finale to a most pleasant and enjoyable evening of medical society activity.

The Council on Rural Health of the American Medical Association together with the state medical associations, the farm, educational and allied organizations of the entire South, are going all out to make the 13th National Conference on Rural Health at Hotel Heidelberg, Jackson, Mississippi, March 6-8, 1958, the best ever. Changing patterns in nutrition, health costs, medical care, dental health and safety will serve as focal points for discussions in connection with the general theme "As the World Turns." Presentations on these subjects and the opinions of those in attendance and the organizations represented will make up the program for this year's conference. The conference will open at 9:45 on Thursday morning, March 6, and adjourn at noon on Saturday, March 8. The latchstring is out so there is a chance to get-up-to-your-neck in discussions on rural health problems and their solutions.

Dr. Dowd, preceding Past President, gives Dr. Walther a ceremonial gavel.



Dr. Walther presents gavel to Dr. Drescher.

A state-wide Conference on the Handicapped will be held at the Statler Hotel, St. Louis, on June 19, 20 and 21. The conference is a joint endeavor of the Missouri Health Council and the Nemours Foundation of Delaware. The Nemours Foundation was founded by Mr. and Mrs. Alfred Dupont about 12 years ago. The original start was a large clinic and hospital for crippled children at Wilmington, Delaware. It is still being operated, and any crippled child may be treated at this institution. The Duponts had a winter home in Jacksonville, Florida, and became interested in crippled children problems in Florida. The Foundation sponsored a conference in Florida and found a great need for concerted efforts in that state. From that beginning, the Foundation has sponsored discussions in a dozen states, most of them being in the southern part of the United States. The purposes of the Conference in St. Louis are: (1) To evaluate present services for the handicapped, (2) to find and define gaps in present services, (3) to determine present duplications in services, (4) to discuss and recommend coordination of present services, (5) to recommend consolidation, if needed and possible, of present services, and (6) to recommend improvements in present services and new services.

The conference is open to anyone interested in these problems. A. R. Shands, Jr., M.D., is medical director of the Nemours Foundation and is taking an active part in developing the program for this conference in cooperation with a special state-wide committee appointed by the Missouri Health Council's Executive Committee. The Foundation is also giving financial support to this project.

DEATHS

Burke, John P., Jr., M.D., Albuquerque, New Mexico, a graduate of St. Louis University School of Medicine, 1906; member Moniteau County Medical Society; aged 77; died January 1.

Conrad, Adolph H., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1906; honor member of St. Louis Medical Society; aged 73; died January 2.

Elliott, John R., M.D., St. Joseph, a graduate of Ensworth Medical College of St. Joseph, 1903; honor member Buchanan County Medical Society; aged 74; died January 11.

Lamar, Frederick C., M.D., Kansas City, a graduate of Louisville Medical College, 1905; honor member Jackson County Medical Society; aged 75; died January 1.

Robinson, G. Wilse, M.D., Kansas City, a graduate of Beaumont Medical College of St. Louis, 1896; honor member Jackson County Medical Society; Past President of the Association; aged 86; died January 22.

Stone, Edna M., M.D., St. Louis, a graduate of Barnes Medical College of St. Louis, 1909; honor member St. Louis Medical Society; aged 76; died January 9.

Thomason, Henry E., M.D., Summers, Arkansas, a graduate of St. Louis University School of Medicine, 1902; honor member Jackson County Medical Society; aged 80; died December 11.

Todd, D. Clay, M.D., St. Louis, a graduate of Barnes Medical College of St. Louis, 1902; honor member St. Louis Medical Society; aged 80; died January 4.

Wall, Harvey M., M.D., Windsor, a graduate of Washington University School of Medicine, 1908; member Henry County Medical Society; aged 74; died January 18.

Weston, Ursa C., M.D., Galt, a graduate of University Medical College of Kansas City, 1910; honor member Grand River Medical Society; aged 72; died December 24.

News

Ferdinand C. Helwig, M.D., Kansas City, was honored at a dinner recently for his 35-year career with a microscope. The dinner, held at the Hotel President, was attended by 420 persons. Dr. Helwig has been with St. Luke's Hospital, Kansas City, for 30 years.

A new nonprofit organization recently was formed for the purposes of promoting medical education and research in the Ozarks area. The organization, sponsored by the Smith-Glynn-Callaway Clinic and other interested persons, will be known as the Smith-Glynn-Callaway Clinic Foundation. One of the purposes of the Foundation is to make available funds to provide grants to research projects and scholarships for individuals desiring to advance their careers in medicine and related fields. The physician members of the board of directors of the Foundation are Drs. **Robert R. Glynn, Guy D. Callaway, Daniel L. Yancey, Durward G. Hall** and **Stanley S. Peterson.**

Richard A. Twyman, M.D., Kansas City, recently was elected president of the medical staff of the Children's Mercy Hospital, succeeding **Hjalmar E. Carlson,** M.D. The staff elected **Frederic A. Speer**, M.D., vice-president, and **Bruce V. Drowns**, M.D., secretary-treasurer, all of Kansas City.

The Boone County Hospital, Columbia, recently was the recipient of a $500 memorial gift from Mr. and Mrs. William R. Gentry, Jr., St. Louis, in honor of their parents.

Recently appointed as a member of the Aurora Hospital board was **R. D. Gowan**, M.D., Aurora, who retired from active practice last summer. Dr. Gowan previously had served two years as mayor of Aurora.

Earl L. Loyd, M.D., Jefferson City, recently was elected president of the medical staff at St. Mary's Hospital, succeeding **H. V. Guhleman**, M.D. Other staff officers are **Landon H. Gurnee**, M.D., vice-president; **C. Stuart Exon**, M.D., secretary-treasurer; and Drs. **H. V. Guhleman**, **John I. Matthews**, and **J. A. Ossman**, members of the executive committee.

Thomas S. Hopkins, M.D., Sedalia, recently spoke before Sorosis on places he visited on two of the long voyages he took as medical officer on one of the large transports of the Navy's Military Sea Transportation Service. Dr. Hopkins illustrated his talk with pictures he had taken of Gibraltar, Athens, Turkey, Suez, Ceylon, and Japan.

Heart disease in all age groups was the subject of a panel at a public forum held recently in Columbia. The program, sponsored by the Columbia P.T.A. Council, the Boone County Medical Society, and the Boone County Heart Council, featured Drs. **John T. Logue**, **Jack M. Martt**, and **E. L. Washington**, all of Columbia.

Recently elected to the Board of the Practical Nurse Educational Council for a 3-year term were Drs. **Robert Kingsland** and **Jerome I. Simon,** both of St. Louis. The Council sponsors practical nurse education in the St. Louis area and serves in an advisory capacity to the Board of Education School at O'Fallon School and the Community School operated by Missouri Pacific Hospital.

A three day sectional meeting of the American College of Surgeons will be held in Des Moines, Iowa, March 27 through 29, at the Hotel Fort Des Moines. **Virgil E. Jeans**, M.D., Joplin, is scheduled to preside at the Friday afternoon session. On Saturday **Carl A. Moyer**, M.D., St. Louis, will serve as leader on a "Symposium on Fluids and Electrolytes" and also as moderator of a panel on "Fluids and Electrolytes."

Guest speaker before the annual meeting of the Smithville Community Hospital recently was Mr. Stephen F. Bonney, assistant director of Blue Cross and Blue Shield, Kansas City. His topic was "Hospital Trends in Rural Communities." There are 176 members of the nonprofit association which operates the hospital. This year marks the 20th anniversary of the hospital.

Firmin Desloge Hospital, St. Louis, will celebrate its jubilee year with a series of special events commencing in January and continuing to next November. A series of eight scientific sessions featuring authorities in a number of fields of medical knowledge opened February 6 with a meeting sponsored by the department of internal medicine. Authorities in the field of cancer participated in a symposium February 13 conducted by the department of obstetrics and gynecology.

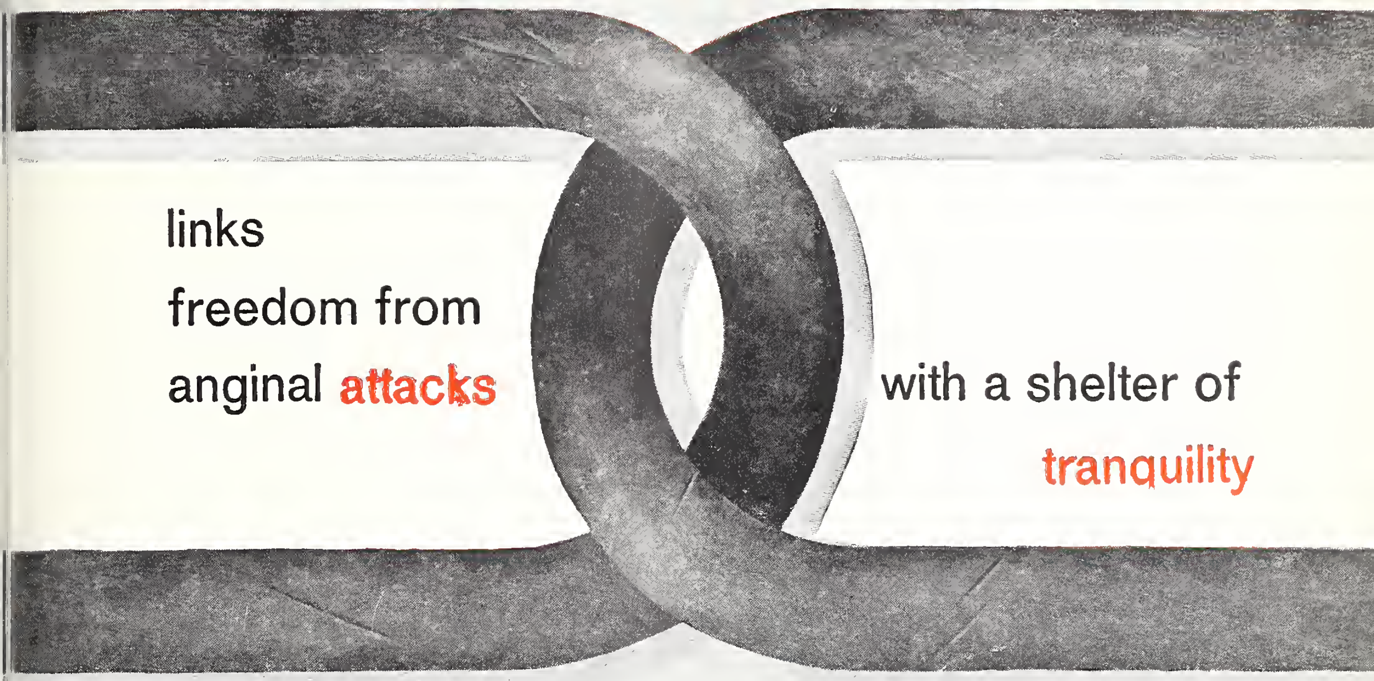
Merrill R. Bay, M.D., Blue Springs, recently was installed as president of the Independence Hospital medical staff. Other officers for 1958 are Drs. **Otto H. Elser**, president-elect; **Paul Bachmann**, secretary-treasurer; **S. J. Kranson**, medical department head; and **Wallace R. Stacey**, surgery head.

W. P. Birney, M.D., Hannibal, recently was honored with a banquet in recognition of his 52 years as a practicing physician. Arrangements were made by the Marion-Ralls-Shelby County Medical Society with Dr. **G. A. Hornback** as chairman and toastmaster. Dr. **J. H. Walterscheid**, acting president of the society, presented Dr. Birney with a gift from the group. Dr. **J. W. Hardesty** spoke briefly and Dr. Hornback read lists of physicians who were practicing in Hannibal in 1905, when Dr. Birney began practicing, and names of those practicing there in 1919 when Dr. Birney came to Hannibal. Dr. **J. C. Chilton** is the only physician still living who was practicing in 1905. Dr. Birney responded with a talk which included reminiscences of the "horse and buggy" days in the practice of medicine.

new for angina

PETN + ATARAX®
(PENTAERYTHRITOL TETRANITRATE) (HYDROXYZINE)

CARTRAX*



In pain. Anxious. Fearful. On the road to cardiac invalidism. These are the pathways of angina patients. For fear and pain are inexorably linked in the angina syndrome.

For angina patients—perhaps the next one who enters your office—won't you consider new CARTRAX? This doubly effective therapy combines PETN (pentaerythritol tetranitrate) for lasting vasodilation and ATARAX for peace of mind. Thus CARTRAX relieves not only the anginal pain but reduces the concomitant anxiety.

Dosage and supplied: begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated, this may be increased for more optimal effect by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100. CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

"Cardiac patients who show significant manifestations of anxiety should receive ataractic treatment as part of the therapeutic approach to the cardiac problem."[1]

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Division, Chas. Pfizer & Co., Inc.

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1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. 8:1075 (July) 1957.

*TRADEMARK

Conrad S. Sommer, M.D., St. Louis, has been elected president of the Psychoanalytic Foundation of St. Louis.

John A. Growdon, M.D., Kansas City, has been chosen president of the St. Joseph Hospital staff for 1959. The presidents, also called chiefs-of-staff, are elected a year in advance. Dr. **T. E. McMillan**, Kansas City, will serve as president during 1958. Other officers are Dr. **Howard E. Linville**, Kansas City, secretary; and Dr. **Leo F. Cooper**, Kansas City, treasurer.

The Boone County Court recently reappointed Dr. **F. C. Suggett**, Columbia, as county physician.

Guest speaker for the Sikeston Community Teachers Association recently was **Carl G. Popp**, M.D., Sikeston, who spoke on "Schools of European Countries."

E. B. Robichaux, M.D., Excelsior Springs, recently spoke before the Senior Civic Improvement Association on "Atherosclerosis."

The newly elected medical staff of the St. Francis Hospital in Washington are **M. S. Wepprich**, M.D., Washington, president; **G. M. Workman**, M.D., Hermann, vice-president; and **B. G. Strehlman**, M.D., Union, secretary-treasurer.

Speaking recently before the Cole County Association for Retarded Children in Jefferson City was **William Cassel, Jr.**, M.D., head of the maternal and child health bureau for the State Health Department.

LeMoyne Synder, M.D., Lansing, Michigan, has been chosen to present the 9th Annual Dr. F. G. Thompson, Sr. Lectureship on Thursday, April 24, by the Thompson-Brumm-Knepper Clinic, St. Joseph. Dr. Snyder's subject will be "Murder Challenges the Doctor." Dr. Snyder is lecturer in Legal Medicine at Harvard Medical School and Michigan University.

In the January issue of *Missouri San-O-Zark*, the official publication of the Missouri State Sanatorium at Mt. Vernon, there appeared an article by **C. A. Brasher**, M.D., superintendent of the Sanatorium, describing the exhibit on "Histoplasmosis" which was shown in the American Medical Association's Scientific Exhibit in Philadelphia last December. This exhibit is on display in Mt. Vernon at the hospital.

John A. Putnam, M.D., Carthage, is in India for special work at the Dr. Henry Tristram Holland's clinic at Quetta on the northwest frontier of that country.

Guest speaker before the Joplin Kiwanis Club recently was **Bart E. Wooldridge**, M.D., who spoke on "Advances in Surgical Treatment of Heart Diseases."

Speaking recently before the Mexico "Heart Open Forum" was **John H. Killough**, M.D., Columbia. Dr. Killough discussed "Heart Disease in the Middle-Aged and Aged." **Lawrence K. Epple**, M.D., Mexico, president of the Audrain County Heart Council, presided at the public meeting.

Missouri Medicine in Review

(Continued from page 212)

E. Strauss, M.D., St. Louis, secretary-treasurer.

A regional meeting of the American Society of Anesthesiology and the Kansas City Society of Anesthesiology will convene in Kansas City at Hotel President on April 4, 5, and 6.

David V. LeMone, M.D., and Jack Modlin, M.D., Columbia, spoke at a joint meeting of nine county medical societies at Chillicothe on "The Scout Film in X-Ray Diagnosis." Daniel B. Landau, M.D., Hannibal, spoke at a meeting of the Second Councilor District in Moberly on "Infant Feeding, Immunizations and General Care Through the First Year of Life."

The St. Louis County Medical Society met on January 28 at 8:30 p.m. at the Health Center, St. Louis County Hospital, Clayton. In accordance with a resolution passed last year, a minute of silence was observed in memory of the following members of the society who died during the year: R. D. Furlong, M.D.; E. T. Gallagher, M.D.; Thomas J. Kemp, M.D., and F. P. Knabb, M.D.

The South Central Medical Society held a dinner meeting at the El Patio Hotel, Cabool, at 7:00 p.m. on January 1. The following members and guest were present: R. W. Denney, M.D., and A. C. Ames, M.D., Mountain Grove; Garrett Hogg, Jr., M.D., Cabool; J. R. Womack, M.D., Houston; Leslie Randall, M.D., Licking; C. F. Callihan, M.D., Willow Springs; E. C. Bohrer, M.D., and Rollin H. Smith, M.D., West Plains; Harry D. Silsby, M.D., and John P. Ferguson, M.D., Springfield; T. J. Burns, M.D., Houston.

The Scott County Medical Society met at the Sikeston General Hospital on December 17 at 7:30 p.m. with the following members present: W. O. Finney, M.D., Chaffee; E. D. Urban, M.D., H. B. Throgmorton, M.D., A. P. Sargent, M.D., T. C. McClure, M.D., and A. D. Martin, M.D., Sikeston. The following officers of the society were elected to serve in 1948: President, A. P. Sargent, M.D.; vice president, E. J. Nienstedt, M.D.; secretary, E. D. Urban, M.D.; censors, Jesse A. Cline, M.D., and George A. Sample, M.D.; delegate, W. O. Finney, M.D.; alternate, A. D. Martin, M.D.

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SULFAMETHOXYPYRIDAZINE (3-SULFANILAMIDO-6-METHOXYPYRIDAZINE) LEDERLE

New authoritative studies prove that KYNEX dosage can be reduced even further than that recommended earlier.[1] Now, clinical evidence has established that a single (0.5 Gm.) tablet maintains therapeutic blood levels extending beyond 24 hours. Still more proof that KYNEX stands alone in sulfa performance—

- Lowest Oral Dose In Sulfa History—0.5 Gm. (1 tablet) daily in the usual patient for maintenance of therapeutic blood levels
- Higher Solubility—effective blood concentrations within an hour or two
- Effective Antibacterial Range—exceptional effectiveness in urinary tract infections
- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

NEW DOSAGE. The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

TABLETS: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

SYRUP: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

[1] Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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MISSOURI STATE MEDICAL ASSOCIATION

100th Annual Session
Sheraton-Jefferson Hotel, St. Louis
April 13-16, 1958

TIME AND PLACE OF MEETINGS

Sunday, April 13

12:30 p.m. Registration for Delegates, Mezzanine Floor.
1:30 p.m. House of Delegates, Crystal Room.
3:30 p.m. Reference Committee Meetings, Crystal Room, Rooms 2, 3, 6, 8.
7:00 p.m. Buffet Supper and Entertainment, Woman's Auxiliary, Boulevard Room.

Monday, April 14

8:00 a.m. Registration, Mezzanine Floor.
9:00 a.m. Motion Pictures, Crystal Room.
10:00 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
12:30 p.m. Intermission to View Exhibits and Lunch.
2:00 p.m. Scientific Session, Crystal Room.
3:00 p.m. Intermission to View Exhibits.
3:30 p.m. Scientific Session, Crystal Room.
4:30 p.m. House of Delegates, Crystal Room.
5:30 p.m. Reference Committee Meetings, Crystal Room and Rooms 2, 3, 6, 7.
7:00 p.m. Dinner Meeting of the Missouri State Surgical Society, University Club.

Tuesday, April 15

8:00 a.m. Registration, Mezzanine Floor.
8:00 a.m. Breakfast Meeting, Committee on Maternal Welfare.
8:30 a.m. Motion Picture, Crystal Room.
10:00 a.m. Scientific Session, Crystal Room and 2nd Floor.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
12:30 p.m. Intermission to View Exhibits and Lunch.
12:30 p.m. University of Missouri Medical Alumni Luncheon, Gold Room. Rex Davis, St. Louis, Director KMOX, Speaker.
2:00 p.m. Scientific Session, Crystal Room.
3:00 p.m. Intermission to View Exhibits.
3:30 p.m. Scientific Session, Crystal Room.
6:30 p.m. Reception, Greene County Medical Society, Host, Crystal Room.
7:30 p.m. Annual Banquet, Boulevard Room.

Wednesday, April 16

8:00 a.m. Registration, Mezzanine Floor.
8:30 a.m. Motion Picture, Crystal Room.
9:30 a.m. Scientific Session, Crystal Room and Gold Room.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Session, Crystal Room.
12:30 p.m. Intermission to View Exhibits and Lunch.
1:30 p.m. House of Delegates, Crystal Room.

PROGRAM

Monday, April 14, 1958

9:00 a.m. Motion Pictures: Hypothyroidism. Time and Two Women. Crystal Room.

10:00 a.m. Instruction Courses:
Diagnosis and Treatment of Vaginal Discharge, M. D. Bonebrake, M.D., Springfield. Room 8.

Many gynecologic illnesses first manifest their presence by the onset of vaginal discharge. A history of purulent or blood tinged discharge should immediately alert the examining physician to the possibility of malignancy of the female generative tract. Careful questioning often will give valuable information concerning preceding trauma, exposure to infection, metabolic

WHEN YOU TREAT INFECTIONS IN PATIENTS SUCH AS THESE

- debilitated
- elderly
- diabetics
- infants, especially prematures
- those on corticoids
- those who developed moniliasis on previous broad-spectrum therapy
- those on prolonged and/or high antibiotic dosage
- women—especially if pregnant or diabetic

the best broad-spectrum antibiotic to use is

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin) Sumycin plus Mycostatin

for practical purposes, Mysteclin-V is sodium-free

for "built-in" safety, Mysteclin-V combines:

1. Tetracycline phosphate complex (Sumycin) for superior initial tetracycline blood levels, assuring fast transport of adequate tetracycline to the infection site.

2. Mycostatin—the first safe antifungal antibiotic—for its specific antimonilial activity. Mycostatin protects many patients (see above) who are particularly prone to monilial complications when on broad-spectrum therapy.

Capsules (250 mg./250,000 u.), bottles of 16 and 100. *Half-Strength Capsules* (125 mg./125,000 u.), bottles of 16 and 100. *Suspension* (125 mg./125,000 u.), 2 oz. bottles. *Pediatric Drops* (100 mg./100,000 u.), 10 cc. dropper bottles.

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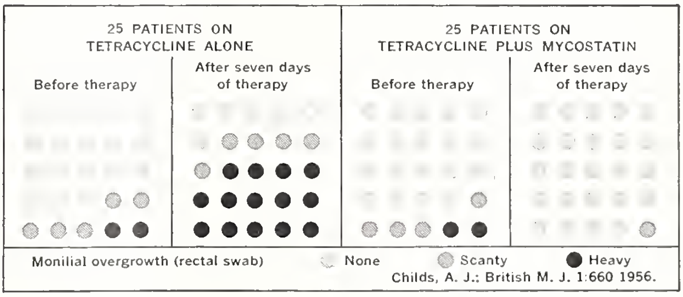

Childs, A. J.: British M. J. 1:660 1956.

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disease and duration of disease. Complete physical examination and utilization of all necessary diagnostic aids will enable patients to receive treatment as early as possible. Immediate diagnosis and the application of adequate therapy early in pelvic disease will increase the cure rate and at the same time decrease the extension of disease and complications.

The Dizzy Patient, Walter L. Moore, M.D., Clayton. Crystal Room.

There are three systems that may be involved if dizziness is present: the labyrinthine (ear), the ocular (eye) and the proprioceptive (muscle-joint). Of these three, the ear is the most important for it is the true organ of balance. With disturbance of any of these systems, a sense of turning is present only when the ear or its intracranial connections are involved. When the disturbance is present in the ears, one speaks of the vertigo as being peripheral in origin. If due to disease within the central nervous system, or to its connections, one says the vertigo is of central origin.

The labyrinth is divided into two parts: (1) the semicircular canals that control kinetic functions, and (2) the saccule and utricle which control static functions. Disturbance in the semicircular canals causes a sensation of turning, whereas a disturbance in the saccule and utricle causes a sensation of change of position in space.

Vertigo may be a symptom of disease elsewhere in the body. Ocular vertigo may be associated with imbalance of the ocular muscles, extraocular palsies and errors of refraction.

Systemic disease, such as arteriosclerosis, hypertension, sudden drop in blood pressure, cardiac abnormalities, anemia, allergy, febrile states, metabolic disorders, focal infections, and intracranial conditions such as brain and brain-stem neoplasm, or abscesses, intracranial hypertension, multiple sclerosis, platybasia, and intracranial aneurysms cause vertigo and other symptoms of labyrinthine irritation. Important, also, are both endogenous and exogenous toxins and blood dyscrasias.

Dizziness is a common symptom of anxiety state and hysteria, as well as a symptom of Meniere's syndrome and variant forms of epilepsy.

Brief description of clinical testing of the ear, both its auditory and vestibular function, will be outlined, and diagnostic aids will be discussed summarily with primary emphasis on the involved clinical principles, and some therapeutic problems will be outlined.

Accompanying charts and diagrams for emphasis and for ease of clarification will be presented along with the discussion.

The Traumatic Abdomen, Heinz Haffner, M.D., St. Louis. Room 9.

Because of the increasing number and severity of accidents, the incidence of abdominal injuries will no doubt increase. Inasmuch as the fatality is directly proportional to the length of time elapsing from the time of the injury until surgical treatment, it behooves all surgeons who are called upon to handle various injuries to be well versed in the principles involved, which will be discussed. These principles will be discussed on the basis of (1) resuscitation, (2) diagnosis and surgical treatment with special emphasis on management of laceration of the spleen, liver, duodenum and pancreas; small intestine, large intestine and bladder.

Head Injuries at Birth, James P. King, M.D., St. Louis. Room 7.

Peripheral Vascular Disease, Robert A. Jordan, M.D., Kansas City, Kansas. Room 2.

The discussion will be limited to a consideration of the organic occlusive arterial diseases. The technic of physical diagnosis will be emphasized as it applies to these diseases; however, there will also be some discussion of more elaborate diagnostic methods. Medical and surgical management will be discussed.

The Burned Hand, F. X. Paletta, M.D., St. Louis. Room 3.

Burn can be a crippling disease in the hand. Early skin grafting on deep burns of the hand is more important. Constant attention directed to early motion in the fingers will minimize stiffening. It should always be kept in mind that the position of function in hand dressings is essential. Wherever possible, early debridement followed by skin grafting prevents the occurrence of contractures. Skin coverage of exposed tendons and joints is man-

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Dihydrocodeinone bitartrate	1.33	mg.
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Ammonium chloride	70.0	mg.
Menthol	1.0	mg.
Chloroform	0.02	cc.
Alcohol	8%	

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when anxiety and tension "erupts" in the G. I. tract...

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Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of gastric ulcer — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

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datory, otherwise necrosis and infection will complicate the management. It is not advisable to wait long to remove necrotic tissue from the burned hand; one must be aggressive. Daily immersion in a water bath after the first week of injury will prevent fibrinous exudate in the interphalangeal joints from forming permanent scar tissue.

11:00 a.m. Intermission to visit exhibits.

11:30 a.m. Instruction Courses: Repeated from 10:00 a.m.

12:30 p.m. Intermission to view exhibits and lunch.

2:00 p.m. Intestinal Obstruction: Early Diagnosis and Management, Rudolph J. Noer, M.D., Louisville, Ky.

2:30 p.m. Dependents' Medical Care Program, Paul I. Robinson, Major General, M.C., Washington, D. C.

Presentation will include the following:

1. Factual data concerning operation of the Dependents' Medical Program during the first year.
2. Outline of special problems involving physicians and service rendered by them.
3. Benefits and their value to Uniformed Service personnel.

3:00 p.m. Intermission to view exhibits.

3:30 p.m. Clinical Pathologic Conference.
Moderator: Joseph E. Flynn, M.D., Columbia.
Panelists: John J. Hammond, M.D., St. Louis; J. M. Martt, M.D., Columbia; Armand E. Brodeur, M.D., St. Louis.

Clinical Protocol

Admitted: Sept. 20, 1957; *Expired:* Oct. 12, 1957; *Autopsy No.:* A10216; *Age:* 15 years; *Sex:* Male.

Present and Past Illnesses: This 15-year-old white boy was referred to the hospital on Sept. 20, 1957, for treatment of his third major episode of cardiac difficulty since the age of 7.

The patient was the oldest of six children of a tenant farmer. The family lived in a four room house without central heat or plumbing. The family acknowledged that the medical supervision of the boy had been poor due to their economic status. The parents and the siblings were said to be in good health except for some sore throats and fever in the two youngest siblings. The patient was born after an uncomplicated pregnancy and no difficulty was experienced at delivery or during the neonatal period. His general early development and health were good. He had received no immunizations.

At the age of 7, following measles, he developed marked pallor, fever, and swelling, pain and exquisite tenderness in the knees and ankles. The diagnosis of acute rheumatic fever was made by the family physician who said that the boy had cardiac involvement. He was treated with sodium salicylate for a time and he remained in bed for seven months. During the next three years he had intermittent mild joint pain and fever and he tired easily. At the age of 10 years he was hospitalized for five weeks because of painful swollen joints in the upper and lower extremities. He was treated with sodium salicylate and penicillin. He was said to have had a large heart and a murmur at that time. He has continued to have mild intermittent joint swelling and pain. In May of 1957 he weighed 130 pounds and seemed to be feeling fairly well. He participated in sports to a limited degree and attended school regularly.

In July he had pain in the wrists, knees and ankles. He began to lose weight. He developed a transitory erythematous rash on the hands, legs and feet. From that time until admission he was in bed a good part of the time, and was treated intermittently with sodium salicylate and penicillin. His heart beat was forceful and obvious to him and his parents, as were the tachycardia and arrhythmia. Fever had not been noted recently. A few weeks before admission he had a group of raised red spots on one of his fingers. The spots faded in a few days.

Physical Examination: Height was 65 inches, weight 101 pounds, temperature 98 F., pulse 120 per minute, blood pressure 145/50, 20 mm. Hg.

The patient was a thin, pale, chronically ill appearing boy who was apprehensive but cooperative. The ear, nose and throat examination was

How Old is Too Old for Tranquilizers ?

The psychological needs of the elderly confront physicians with one of their most perplexing problems. Perhaps no other patient group suffers so much from emotional distress. Yet, precisely because of their age, geriatric patients often seem beyond the reach of tranquilizing treatment.

When tranquilization seems risky . . .

They are too much beset by complicating chronic ailments, too susceptible to serious side effects. Ataraxia is clearly indicated, yet the doctor cannot risk side reactions on liver, blood or nervous system.

Is there an answer to this dilemma?

We feel there is. In four recent papers investigators have reported good results with ATARAX in patients up to 90 years of age.* In one study, **improvement** was **"pronounced" in 76%, "good" in an additional 18.5%.*** ATARAX has been successfully used in such cases as senile anxiety, agitation, hyperemotivity and persecution complex.* On ATARAX, patients became ". . . quieter and more manageable. They slept better and demonstrated improved relations with other patients and hospital personnel. Even their personal hygiene improved, and they required less supervisory management."*

. . . ATARAX is safe

Yet even in the aged, ATARAX has given "no evidence of toxicity. . . . Complete liver function tests and blood studies were made on all patients after two months of therapy. . . . There were no significant abnormalities."* With still other elderly patients "tolerance to the drug was excellent, even in cases where the patients were given relatively high doses."* Similarly, no parkinsonian effects have been observed on ATARAX therapy.

Nor does ATARAX make your patients want to sleep all day. Instead, they can better take care of themselves, because ATARAX leaves them both calm and alert. In sum, ATARAX ". . . does not impair psychic function and has a minimum of side effects. . . . It appears that ATARAX is a safe drug. . . ."*

These, undoubtedly, are the results you want when emotional problems beset your geriatric patients. For the next four weeks, won't you prescribe tiny ATARAX tablets or pleasant-tasting ATARAX syrup — both so readily acceptable to the elderly.

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ATARAX
in any
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for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

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for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

normal except for some inflammation of the tonsils. The teeth were in good repair. Respirations were unlabored. There were no abnormal findings relating to the lungs. The heart was obviously enlarged with a diffuse precordial impulse extending to the anterior axillary line. There was a grade IV diastolic murmur heard best at the left of the sternum and also heard in the aortic area where a systolic murmur was audible also. The second heart sound in the aortic area was not heard. There was a grade IV apical systolic murmur and a short diastolic murmur at the apex. The carotid arteries visibly pulsated. The pulsations of the major peripheral arteries were marked. The liver was palpated at about 2 cm. below the costal margin, and was not strikingly tender. The spleen was not palpable. There was no edema. The venous pressure measured externally by using the jugular veins (Lewis method) was 4 cm. There were no nodules, no petechiae, no joint tenderness and no joint swelling. The neurologic examination was normal except for minimal jerking movements of the outstretched fingers.

Laboratory: The initial blood values were: hemoglobin 9.1 grams per cent; hematocrit 30 per cent; white blood count 7,600 with 67 per cent neutrophils, 5 per cent metamyelocytes, 22 per cent lymphocytes, 3 per cent monocytes and 2 per cent eosinophils. The sedimentation rate was 61 mm. in one hour (Wintrobe); NPN 40 mg. per cent; total plasma protein 7.5 gm. per cent; antistreptolysin titer 625 Todd units. Two weeks later the antistreptolysin titer was 333 Todd units. C-reactive protein was positive; LE cell preparation negative. On admission the urine contained a trace of albumin and 3 to 4 red blood cells per high power field. Otherwise the urine was normal. There were no significant deviations from any of the reported laboratory findings which were repeated.

A blood culture obtained on admission grew alpha hemolytic streptococci which were sensitive to penicillin. Repeat blood cultures, including arterial, were sterile.

Chest x-rays revealed moderate generalized cardiac enlargement without evidence of pulmonary congestion or intracardiac calcification at the time of admission. Three weeks later x-rays showed greater prominence of the left atrium and mild pulmonary congestion. The electrocardiogram at the time of admission revealed occasional premature ventricular contractions, left ventricular hypertrophy and abnormal P-waves. Repeat electrocardiograms showed improvement in the P-waves, no further premature ventricular contractions and evidence of digitalis effect.

Course: The patient was kept at bed rest and he was given 600,000 units of procaine penicillin daily. His general appearance improved during the next few days after admission. His heart rate decreased and became less variable after the first week. Premature ventricular contractions were no longer detected. He had no fever. The murmurs changed somewhat at first, then remained fairly constant. He ate well, and his fluid intake and output were normal. Two weeks after admission he complained of mild left flank pain with tenderness over the kidney area. Urinalyses were normal. Two days later he had a transitory headache and his blood pressure was 160/0, at that time. There were no other significant findings. He coughed up a small amount of brown-stained sputum. Digitalization with digitoxin was accomplished with little effect. During the next several days he seemed to feel again but about four weeks after admission he had some low grade fever for several days. On October 4, following an episode of extreme anxiety, the patient developed a cluster of small needle-point red spots on the upper hand and arm. The spots did not fade on pressure. On October 10, the patient had a questionably palpable spleen. The evening of October 11, he complained of a severe headache. His blood pressure was 300/0. Within two hours he became comatose, his heart rate became irregular and respirations became periodic. The left side seemed more flaccid than the right. There were no changes in the eyegrounds. He continued in this manner until 2:00 a.m. on October 12, when he expired.

Tuesday, April 15, 1958

8:30 a.m. Motion Picture: Diagnostic and Therapeutic Advances in Liver Diseases.

10:00 a.m. Instruction Courses:
Management of Upper Gastrointestinal Hemorrhage, Richard Sterkel, M.D., St. Louis. Room 8.

The immediate and definitive management of upper gastrointestinal hemorrhage is dependent upon the extent of bleeding and the basic under-

EMIN*

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Provides the following percentages of Minimum Daily Requirements per teaspoonful:

	Child under 6	Child over 6	Adult
B_1	2000%	1333%	1000%
Iron	400%	300%	300%

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EACH TEASPOONFUL (5 cc.) CONTAINS

l-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Alcohol	0.75%

Average dosage is one teaspoonful daily. Available in bottles of 4 fl. oz.

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LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK Lederle lying disease process. The presentation will be concerned with statistical incidence, practical diagnostic measures and criteria for estimating the amount of blood loss. A definitive therapeutic program will be outlined for certain of the more commonly encountered conditions.

Oral Hypoglycemic Agents, Sol Sherry, M.D., St. Louis. Crystal Room.

A review of the historic background, possible mechanisms of actions, and the present state of knowledge concerning the use of oral hypoglycemic agents in the management of the diabetic patient will be presented.

Fractures of the Femur, Richard T. Odell, M.D., St. Louis. Room 9.

Fractures of the femur will be discussed with the greatest emphasis being placed on the upper and lower portions of the femur.

Fractures of the upper end of the femur will include not only the treatment of acute fractures of the cervical neck, intertrochanteric and subtrochanteric fractures of the femur, but also the indications for, and the use of, replacement femoral head prosthesis.

Fractures of the shaft of the femur will be discussed briefly, including the use of the intramedullary nail; and the treatment of segmental fractures of the femoral shaft.

Fractures of the distal end of the femur with involvement of the knee joint, as well as of the distal shaft of the femur, will be discussed and treatment of these types of fractures.

If time permits, complications of the various types of fractures will be discussed briefly. Lantern slides of demonstrative cases will be employed.

Tendon Repair, John H. Gaskins, M.D., Kansas City. Room 7.

The discussion will include types of tendon repair by silk and wire technic, incisions used for tendon repair, indications and contra-indications for primary repair, site of laceration influencing time and type of repair, secondary repair, and postoperative care.

Use, Hazards and Abuse of Antibiotics, M. Kenton King, M.D., St. Louis. Room 2.

One of the most difficult problems in present day antibiotic therapy is the rapid and increasing emergence of resistant strains of Staphylococci. This problem will be presented and its management discussed. Secondly, evidence has begun to accumulate recently which suggests that the prophylactic use of antibiotics is not as effective as formerly supposed, and often is harmful. This evidence will be presented and discussed.

Present Status of Steroid Therapy, C. Stewart Gillmore, M.D., Kansas City. Room 3.

Discussion will include: (1) Brief history and types of steroid drugs employed in treatment of rheumatic and collagen diseases, with discussion of these diseases that respond to steriod therapy. (2) Methods, use and indications of when not to employ steroid therapy in the treatment of rheumatic diseases and dosages to be adhered to when used. (3) Pathologic and harmful effects from overdosage and prolonged use of steroid therapy with resulting hypercortisonism and disturbances of the blood picture.

11:00 a.m. Intermission to view exhibits.

11:30 a.m. Instruction Courses: Repeated from 10:00 a.m.

12:30 p.m. Intermission to view exhibits and for lunch.

12:30 p.m. University of Missouri Medical Alumni Association Luncheon. North End, Gold Room.
Rex Davis, Director, KMOX, St. Louis, Speaker.

2:00 p.m. The Management of a Patient With a Thyroid Nodule, Frank F. Allbritten, Jr., M.D., Kansas City, Kansas.

2:30 p.m. Farmer's Lung, Helen A. Dickie, M.D., Madison, Wisconsin.

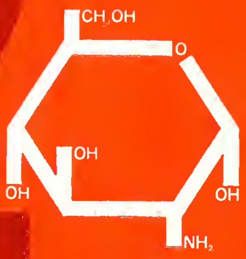
3:00 p.m. Intermission to view exhibits.

3:30 p.m. Grand Rounds:
Moderator: Paul Murphy, M.D., St. Louis.

Three advantages of glucosamine-potentiated tetracycline:

Highest, fastest tetracycline blood levels, with glucosamine enhancement. A screening program involving 84 possible adjuvants, multiple four-way crossover tests, 30,000 blood level determinations and more than 100,000 assays proved glucosamine to be the enhancing agent of choice.

Greatest consistency of higher tetracycline blood levels Not only does glucosamine considerably increase antibiotic blood levels faster, but it produces these higher blood levels more consistently as shown by extensive crossover tests.



Achieved with the physiologic advantages of glucosamine, a normal human metabolite. Glucosamine, found widely in the body, is nontoxic and does not irritate the gastrointestinal tract; there is evidence that glucosamine may favorably influence the bacterial flora of the intestine. Further, it is sodium free and releases only four calories of energy per gram.

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The most widely prescribed broad-spectrum antibiotic now potentiated with glucosamine, the enhancing agent of choice

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Capsules, 250 mg., 125 mg.
Half strength (125 mg. capsules) for long-term indications or pediatric use.

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Panelists: Frank F. Allbritten, Jr., M.D., Kansas City, Kansas.
Helen A. Dickie, M.D., Madison, Wisconsin.
Glenn O. Turner, M.D., Springfield.

7:30 p.m. Annual Banquet in Honor of Past Presidents. World Medicine and Its Influence for Peace, Gunnar Gunderson, M.D., LaCrosse, Wisconsin.

Wednesday, April 16, 1958

8:30 a.m. Motion Picture: The Physician and Emotional Disturbance. Crystal Room.

9:30 a.m. Fission Products in the Biosphere, Bernard F. Trum, Lt. Col., VC, USA, Washington, D. C.

Although the fission of heavy nuclei may result in about 170 fission fragments, creating various elements and masses, there are only a few of these which have been associated with environmental hazards.

The potential risk of levels of Stontium-90 was thoroughly investigated by the Joint Committee on Atomic Energy of the 85th Congress. This committee concluded that the evidence indicated there was no immediate hazard associated with the present levels of Sr-90 in the biosphere. A review of the statements made before the committee will be made.

From time to time reports have been published concerning the transient increase in Iodine-131 in the thyroid glands of man and animals. This isotope was responsible for the withdrawal of a large milk shed in England from production of milk for human consumption for a period of time. A review of this incidence, together with a comparison of levels throughout the world and what is considered to be the significance of these levels, will be attempted.

Only when the presumption of potential hazard is made, together with the recognition that even milk itself may be injurious in excess, does it seem to make sense in dealing with these situations. Ionizing radiation, whether from the physician's roentgen therapy or a nuclear weapon must be evaluated in a quantitative manner, sometimes even weighing risk potentials against the anticipated good. The situation is not new to society, however, "the play is not recognized because the actors are new."

10:00 a.m. Panel: Newer Concepts in Hypertension.
Moderator: Robert W. Wilkins, M.D., Boston, Mass. Crystal Room.

10:45 a.m. Intermission to view exhibits.

11:15 a.m. Panel: The Use of Insulin in Diabetes. Crystal Room.
Moderator: Henry E. Oppenheimer, M.D., St. Louis.
Panelists: Lucien W. Ide, M.D., St. Joseph.
Virginia H. Peden, M.D., St. Louis.
Harold H. Lurie, M.D., Springfield.

11:15 a.m. Symposium on Exfoliative Cytology. Gold Room. Indications for and Principles of Exfoliative Cytology, Claude K. Leeper, M.D., Columbia.
Procedure, Omer E. Hagebusch, M.D., St. Louis.
Sources of Error, Frederick C. Coller, M.D., Springfield.
Correlation of Smear Findings, With Biopsy Study and Recommended Management, Victor B. Buhler, M.D., Kansas City.
Training Cytotechnicians, Joseph E. Flynn, M.D., Columbia.

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Highly specific action

Robaxin is highly specific in its action on the internuncial neurons of the spinal cord – with inherently sustained repression of multisynaptic reflexes, but with no demonstrable effect on monosynaptic reflexes. It thus is useful in the control of skeletal muscle spasm, tremor and other manifestations of hyperactivity, as well as the pain incident to spasm, without impairing strength or normal neuromuscular function.

Beneficial in 94.4% of cases tested

When tested in 72 patients with acute back pain involving muscle spasm, Robaxin induced marked relief in 59, moderate relief in 6, and slight relief in 3 – or an over-all beneficial effect in 94.4%.[1,3,4,6,7] No side effects occurred in 64 of the patients, and only slight side effects in 8. In studies of 129 patients, moderate or negligible side effects occurred in only 6.2%.[1,2,3,4,6,7]

ROBAXIN IN ACUTE BACK PAIN[1,3,4,6,7]

DURATION OF TREATMENT	DOSE PER DAY (divided)	RESPONSE				SIDE EFFECTS
		marked	mod.	slight	neg.	
2-42 days	3-6 Gm.	17	1	0	0	None, 16 Dizziness, 1 Slight nausea, 1
1-42 days	2-6 Gm.	8	1	3	1	None, 12 Nervousness, 1
4-240 days	2.25-6 Gm.	4	1	0	0	None, 5
2-28 days	1.5-9 Gm.	24	3	0	3	None, 25 Dizziness, 1 Lightheadedness, 2 Nausea, 2 *
3-60 days	4-8 Gm.	6	0	0	0	None, 6
		59	6	3	4	*Relieved on reduction of dose

References: 1. Carpenter, E. B.: Publication pending. 2. Carter, C. H.: Personal communication. 3. Forsyth, H. F.: Publication pending. 4. Freund, J.: Personal communication. 5. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. 6. Nachman, H. M.: Personal communication. 7. O'Doherty, D.: Publication pending. 8. Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

Indications – Acute back pain associated with: (a) muscle spasm secondary to sprain; (b) muscle spasm due to trauma; (c) muscle spasm due to nerve irritation; (d) muscle spasm secondary to discogenic disease and postoperative orthopedic procedures; and miscellaneous conditions, such as bursitis, fibrositis, torticollis, etc.

Dosage – Adults: Two tablets 4 times daily to 3 tablets every 4 hours. Total daily dosage: 4 to 9 Gm. in divided doses.

Precautions – There are no specific contraindications to Robaxin and untoward reactions are not to be anticipated. Minor side effects such as lightheadedness, dizziness, nausea may occur rarely in patients with unusual sensitivity to drugs, but disappear on reduction of dosage. When therapy is prolonged routine white blood cell counts should be made since some decrease was noted in 3 patients out of a group of 72 who had received the drug for periods of 30 days or longer.

Supply – Robaxin Tablets, 0.5 Gm., in bottles of 50.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met January 9 at the Strand Hotel in Chillicothe. There was a good attendance of members, Auxiliary members and visitors. After the dinner the Auxiliary retired to their meeting.

The scientific program was presented by Dr. William B. O'Connor, St. Joseph, who discussed "Dermatology and General Practice." Dr. O'Connor gave a fine lecture showing many excellent views of various skin diseases followed by many questions and answers.

The minutes of the last meeting were read and approved. There being no further business, the meeting adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Despite snow and ice the "show went on." The Second Councilor District held its scheduled meeting at the Mark Twain Hotel, in Hannibal, on Tuesday evening, January 21. Festivities began with a social hour at 6:30 p.m., followed by dinner and the program.

The speaker was Dr. Sewell.

The members remained at tables for the program.

The 20 physicians in attendance were privileged to hear a talk by Dr. Walter Sewell of Springfield, President of the Missouri State Medical Association. Dr. Sewell discussed the organizational set-up of the state association along with a number of important problems before the profession today, including legislation on both federal and state levels which is pending.

Dr. B. L. Murphy, Hannibal, Councilor of the Second District, presided. The speaker was introduced by Dr. W. F. Francka, Hannibal, President-elect of the Association. The Marion-Ralls-Shelby Counties Medical Society served as the host society for the meeting.

J. H. Walterscheid, M.D., *Secretary*

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital in Moberly, Thursday night, January 9.

For the program local society members presented interesting and instructive cases which they had during the last year. Doctors presenting cases were Drs. C. C. Cohrs, T. S. Fleming, C. C. Smith and A. P. Rowlette, all of Moberly.

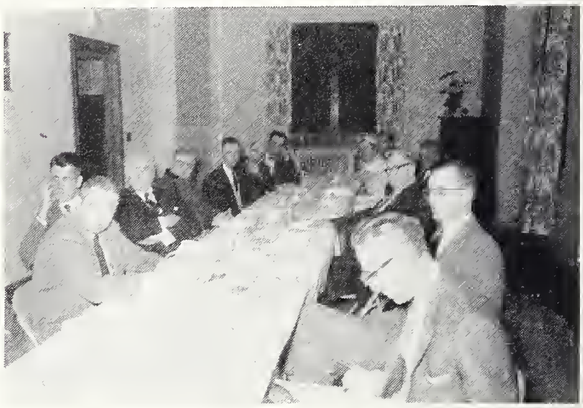
Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

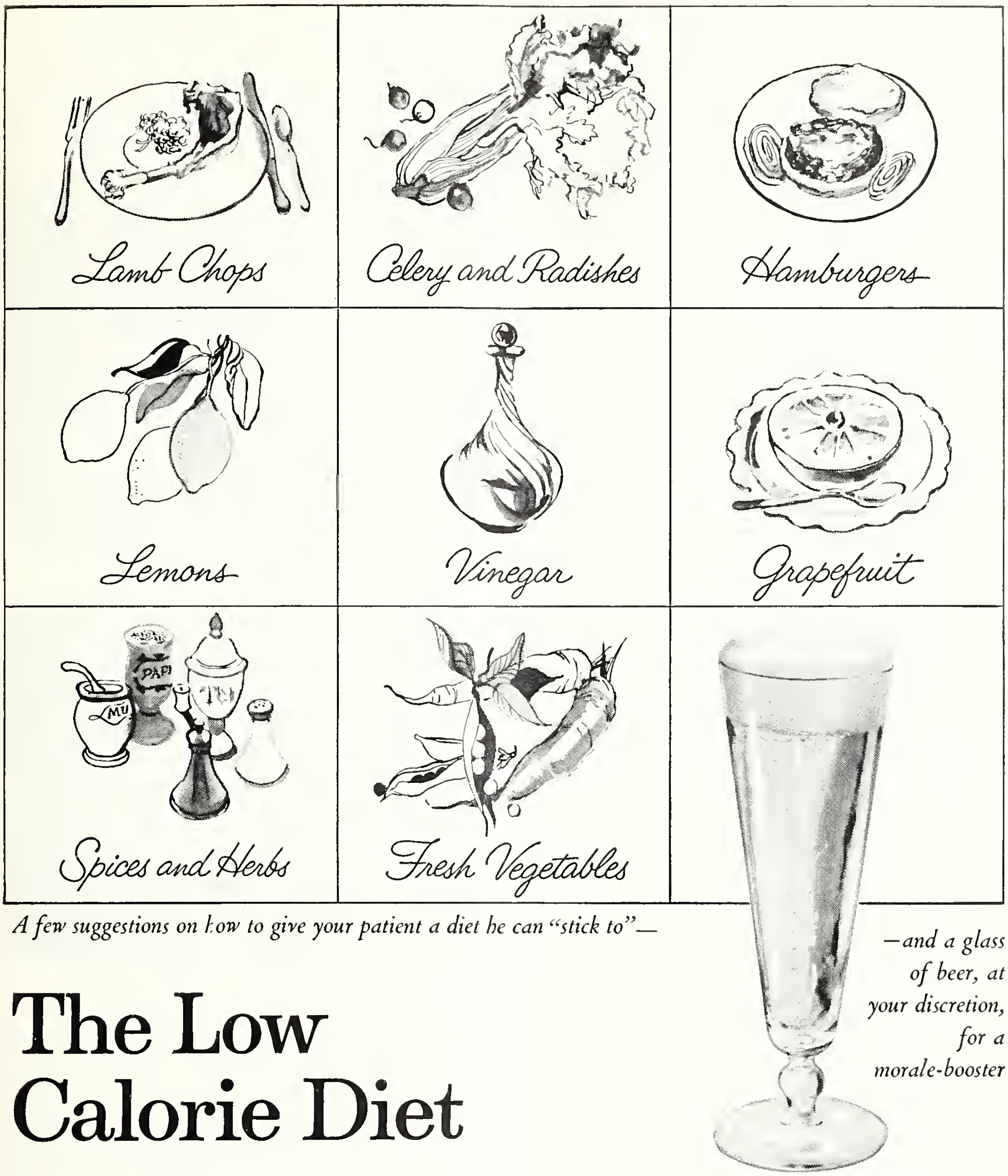
JOSEPH C. CREECH, TROY, COUNCILOR

Franklin-Gasconade-Warren Counties Medical Society

Dr. Walter Sewell, Springfield, President of the Missouri State Medical Association, spoke at the regular monthly meeting of the Franklin-Gasconade-Warren Counties Medical Society at Washington, Tuesday noon, January 28. Following lunch Dr. Sewell was introduced by Dr. Frank Mays, Washington, president of the local society. Mr. T. R. O'Brien and Mr. Ray McIntyre from the State Medical Association office were also introduced by Dr. Mays. Dr. J. C. Creech, Troy, Councilor of the Fourth District, was in an automobile accident en



The Society held a noon meeting.



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Have your patient keep a calorie count. Then with a glass of beer* to brighten meals, he is more likely to follow a balanced diet later.

*104 Calories/8 oz. glass (Average of American Beers)

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The President of the Association addressed the meeting.

route and did not get to the meeting. Dr. Creech was not injured we are glad to report.

The talk by Dr. Sewell and the remarks make by Mr. O'Brien and Mr. McIntyre centered on items and problems that affect the practice of medicine now and in the future.

Wm. Richardson, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

A dinner meeting of the Lincoln-St. Charles County Medical Society was held at the Southern Air, Wentzville, on Thursday night, January 23, with 15 doctors in attendance.

Following dinner the program for the evening was presented by representatives of the Missouri Division of Health of Jefferson City. Dr. William J. Cassel, Jr., M. D., spoke on "The Services Available Over the State for the Care of the Premature Infant." Dr. C. W. Meinershagen discussed "The County Health Nurse, Her Duties and Services." An interesting question and answer period followed the formal talks.

Paul Rother, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical societies, Monday night, January 20, at 7:00 p.m., at the Pilot Lounge, Air Park Motel, Mexico.

The meeting was called to order by the President, Dr. Leonard L. Davis.

The guest speaker for the evening, Dr. Robert E. Funsch, St. Louis, was introduced by Dr. Davis. Dr. Funsch spoke on "Orthopedic Problems in General Practice" and illustrated his lecture with slides and x-rays.

The following doctors were present: Leonard L. Davis, M.D., Ben Jolly, M.D., Ed. S. Wallace, M.D., Lawrence K. Epple, M.D., Thomas L. Dwyer, M.D., Harry F. O'Brien, M.D., F. A. Barnett, M.D., Harold D. Lankford, M.D.

There being no further business, the meeting was adjourned.

Harold D. Lankford, M.D., *Secretary*

Cole County Medical Society

The Cole County Medical Society and its Woman's Auxiliary held a special dinner meeting at the Missouri Hotel in Jefferson City, on Tuesday evening, January 28. An enjoyable social hour at 6:30 p.m., gave the occasion just the right spirit. Dinner was served following the visiting period to some 50 people, including doctors, their wives and guests. A number of doctors and their wives from nearby towns were in attendance.

Dr. Watts introduced the speaker.

Dr. Sewell addressed the meeting.

Special guests for the evening were Dr. and Mrs. Walter Sewell, Springfield. Dr. Sewell is our traveling president of the Missouri State Medical Association. We were glad to get him stopped long enough to appear on this program. He discussed pertinent topics which have concern for the practice of medicine and spiced his remarks with homespun humor. The meeting room was appropriately decorated by members of the Auxiliary. Formal dress was optional so we had some of both.

T. R. O'Brien and Ray McIntyre, St. Louis, were present to see that the president of the State Association was properly looked after. It was a wonderful occasion and we believed all present enjoyed the entire show.

E. Royse Bohrer, M.D., *Secretary*

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references: 1. Strub, I. H.: Personal communication. 2. Ayd, F. J., Jr.: presented at Ohio Assembly of General Practice, 7th Annual Scientific Assembly, Columbus, September 18-19, 1957.

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SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

The regular January meeting of the West Central Missouri Medical Society and the doctors' wives was held at Jack and Emma's Cafe in Harrisonville, on Thursday night, January 9.

The scientific program for the evening, furnished by the Missouri Academy of General Practice, was presented by William Kitchen, M.D., radiologist, Kansas City. Dr. Kitchen spoke on "The Elusive Polyp." This was an interesting and practical discussion.

J. C. Moody, M.D., *Secretary*

Joint Dinner Meeting of Medical Societies

The elements of weather caused a postponement of the scheduled dinner meeting of the Henry, Johnson, Pettis, Lafayette-Ray, Saline and adjacent County Medical Societies on January 22 to Wednesday night, January 29. The session was held at the Old Missouri Homestead in Sedalia. A social hour initiated the festivities which was followed by a tasty smorgasbord dinner.

The scientific program for the evening was in the form of a CPC, presented by Albert E. Upsher, M.D., pathologist, Kansas City. Copies of the protocol had been mailed to the doctors receiving notices of the meeting some ten days previous.

C. G. Stauffacher, M.D., *Councilor*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society and its Woman's Auxiliary held a dinner meeting at the American Legion Hall in Monett on Tuesday, January 14, at 7:00 p.m. A well accepted and interesting program on "Maternal Welfare Committee Work" was presented by Dr. J. L. Johnston, Dr. F. J. Ellis and Dr. M. D. Bonebrake, Springfield. The entire group of doctors participated in the ensuing discussion. Forty members, guests and Auxiliary members were present.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

The Mid-Missouri Medical Society and the doctors' wives held a dinner meeting at the Pine Room, Greyhound Bus Station, in Rolla, on Thursday night, January 23. The speaker for the evening was Dr. Walter Sewell, Springfield, President of the State Medical Association. His talk was well received and presented well some specific items such as: Vendor Medical Care Problems, Doctors and Social Security, Blue Shield and others. Other guests were: Mrs. Sewell, Mr. Phil Foley, St. Louis Blue Shield, and Ray McIntyre, State Association Field Secretary. Dr. and Mrs. Rollin Smith of West Plains, who attend our meetings frequently, were also in attendance.

Dinner preceded the program.

Dr. Sewell gave a talk interesting to the members.

Following the regular program, a short business session was held for the election of 1958 society officers, to wit: President, Dr. James D. Butts, Rolla; vice-presidents, Dr. B. J. Bass, Salem, Dr. A. R. Baumann, Steelville, Dr. C. S. Miller, Waynesville and Dr. H. W. Carrington, Lebanon; secretary-treasurer, Dr. M. K. Underwood, Rolla.

Dr. Sewell was introduced as the speaker of the evening by Dr. J. H. Summers of Lebanon, Councilor of the Ninth District of the Missouri State Medical Association.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner at the K & J Cafe in Willow Springs, Wednesday night, January 22, with members and visitors as follows: Dr. and Mrs. H. W. Miller and Dr. and Mrs. M. B. Perkins, Willow Springs; Dr. and Mrs. R. W. Denney and Dr. A. C. Ames, Mountain Grove; Dr. and Mrs. D. E. Tiffany, Mountain View; Dr. and Mrs. M. L. Fowler and Dr. Jack Wiles, West Plains; Dr. and Mrs. A. T. Walker, Mammoth Spring, Arkansas; Dr. Joe Spears, Cabool; Dr. Fred Coller and Dr. M. D. Bonebrake, Springfield.

After dinner, the ladies went home with Mrs. Miller for the evening and the doctors went to Dr. Miller's office for the program. Dr. Coller showed films and spoke on diagnosis of cancer of the cervix by the microscopic examination of the secretions and advised such examinations, even when there are no symptoms.

The minutes of the last meeting were read and approved and Dr. Fowler expressed thanks of the Society to the speaker and the meeting was adjourned to meet in Cabool the fourth Wednesday of February with Drs. Hogg and Spears.

A. C. Ames, M.D., *Secretary*

EDICATION

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TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Pemiscot County Medical Society

A dinner meeting of the Pemiscot County Medical Society was held at the Pemiscot County Memorial Hospital on January 9. The meeting was called to order by Dr. Poff. Last month's minutes were read and approved.

Members present were: Drs. Poff, O. W. Cook, Aquino, Caldwell, Bryant, Hensley, McCoy, J. Duckworth, G. Duckworth, Chapman, Shirey, Cain and Gubin. Guests included Dr. Hagebusch, Dr. Campus, Dr. Tarber, Dr. Zimmerman and Dr. Miltonberger.

Dr. Poff introduced the guest speakers, Dr. Hagebusch and Dr. Campus, and an interesting discussion was given on office cytology, with particular reference to vaginal smears and the detection program for cervical and uterine cancer. Then, two interesting films were shown in relationship to this problem.

Following the scientific program, a motion was made, seconded and carried that the County Medical Society go on record as approving one of the films shown as approved for general distribution and showing to lay groups of women. This was felt to be in order, so that more public interest would be generated in the problem of cancer of the cervix and uterus.

There was no old business.

Dr. Poff stated that although the Pemiscot County Medical Society had a charter the State Medical Association offices had no copy of any constitution and by-laws for this county. He suggested that a proposed constitution and by-laws be considered. He suggested that this proposed constitution and by-laws be mimeographed and a copy sent to each of the members and a discussion and possible approval of a similar constitution and by-laws planned for the next meeting. This was generally agreed upon and such a plan will be carried out.

Dr. Aquino brought up the question of the lack of provision for the correction of absenteeism at the county meetings. No definite action was taken on this. The question was brought up of the conflict of the Mid-South Medical Convention with the February meeting. A motion was made by Dr. Bryant that the February meeting be held on the 20th of February and this was seconded by Dr. Aquino and passed.

Dr. Aquino volunteered to hold the program for the February meeting, provided he could get Dr. Vonnie Hall, dermatologist, from Memphis. Dr. Gordon Duckworth was named alternate program chairman.

Dr. Gordon Duckworth was made the program chairman for the March meeting.

Having no further business at hand, the meeting was adjourned.

JOHN K. DUCKWORTH, M.D., *Secretary*

TAKE A LOOK AT
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THE UNEXCELLE
ANTIHISTAMINE

AUXILIARY BUFFET TO BE CALYPSO CRUISE

The Woman's Auxiliary to the Association is holding its buffet dinner and entertainment on Sunday evening, April 13, in the Boulevard Room, Sheraton-Jefferson Hotel, St. Louis.

They announce the evening as "Calypso Cruise" via S. S. Auxiliary Line, a cruise with a carnival air, featuring a social hour at the Voo-Doo bar (courtesy St. Louis City and St. Louis County Medical Societies), exquisite cuisine followed by an armchair cruise to the Carribean via a 20-minute color film (courtesy Kirkland Travel Service), "live" dancing girls in gay costumes, and a riotous entertainment by "The Four Front Teeth," recent winners of a chance for a national television appearance in New York. They promise that in a colorful setting with exotic flowers and calypso music, one will imagine the trade winds whispering "Have fun. Be gay. For this is Convention Day."

BOOK REVIEW

Healthful School Living, A Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association With the Cooperation of Contributors and Consultants, edited by Charles C. Wilson, M.D., Professor of Education and Public Health, Yale University. National Education Association, Washington, D. C. Price $5.00.

This book is the third issued under the same sponsorship dealing with schools and health. The first, "Health Education," was published in 1924 and had several revisions. The second was "School Health Services" published in 1953.

The present volume stresses solution of health problems for students and schools, as, school housekeeping, prevention of accidents, water supply and waste disposal, heating, ventilating and lighting, the school lunch, school building construction and physical education.

The book is well organized to use as reference to specific problems and also is easily readable for full study on improving the health and the school. It has references at the end of each chapter for further study of specific problems discussed.

At the end of the book is an appendix which furnishes means for the school to evaluate itself in "healthful school living."

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MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

SCIENTIFIC SESSION, SHERATON-JEFFERSON HOTEL, ROOM 1

Monday, April 14, 1958

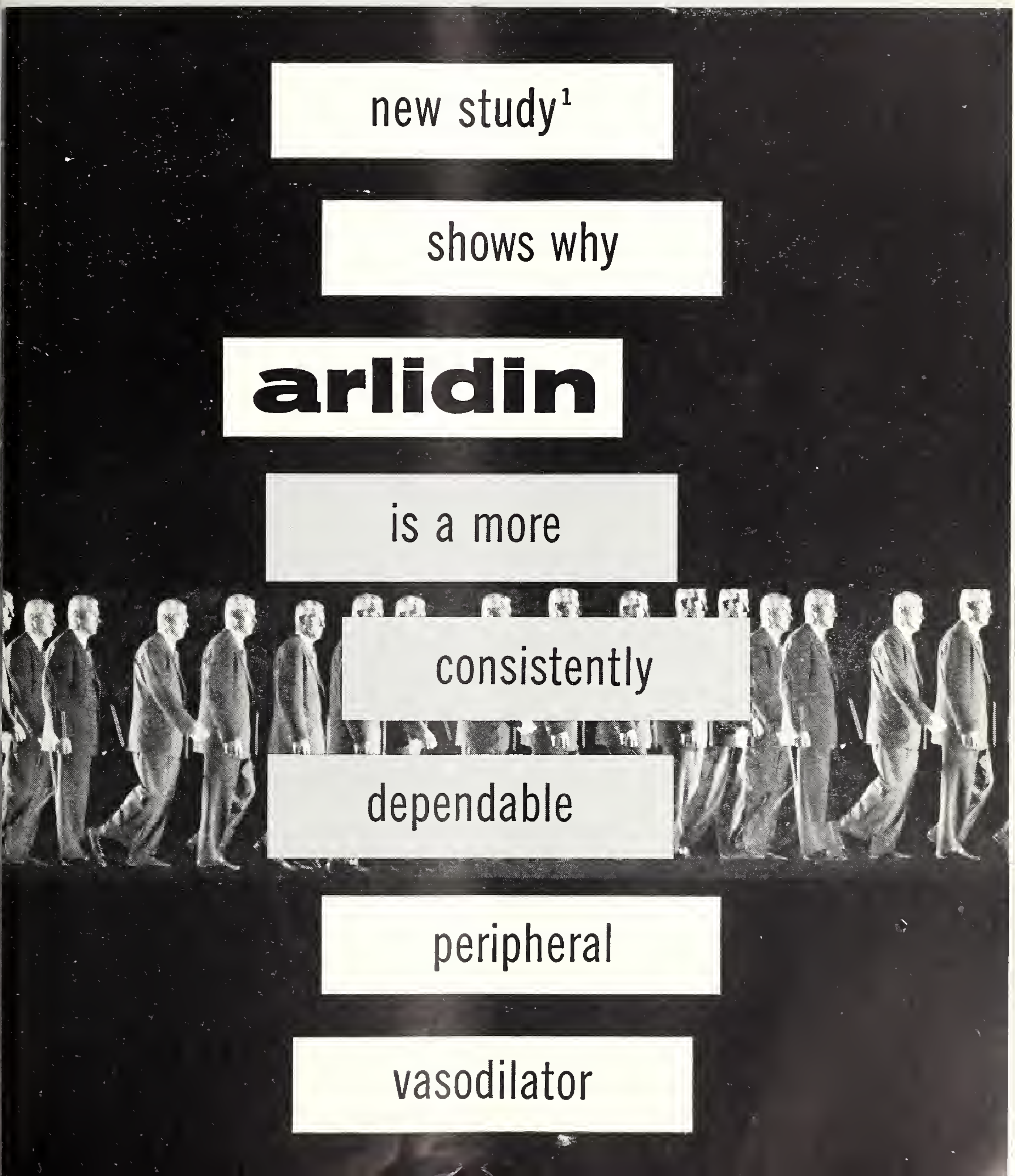
9:00 a.m. Invocation, Father Joseph Winter, Chaplain at Cardinal Glennon Memorial Hospital for Children, St. Louis.
Blood Bank Session.
9:10 a.m. Lectures by Dr. Hugh Chaplin and Dr. Argell.
11:30 a.m. Blood Bank Panel: Dr. Hugh Chaplin, Dr. Argell, Dr. Drummond H. Bowden, Dr. John Pfaff, Jr., Miss Marie Anderson, M.T. (A.S.C.P.), Miss Lulu Mims, M.T. (A.S.C.P.) BB.
12:30 p.m. Intermission.
2:00 p.m. Workshop in Spectrophotometry Using the Coleman Junior Spectrophotometer, Vincent P. Perna, M.D., Instructor in Pathology, University of Missouri School of Medicine, Columbia.

Tuesday, April 15, 1958

9:00 a.m. Serum Iron and Total Iron Binding Capacity, Bernadette Bocklage, Ph.D., Biochemist, Snodgras Laboratory, City Hospital; Assistant Professor in Biochemistry, St. Louis University School of Medicine, St. Louis.
9:45 a.m. Practical Aspects of Diagnex Methylene Blue Test, William N. Blalock, M.D., Instructor in Clinical Medicine, Washington University School of Medicine, St. Louis.
10:30 a.m. Potassium and Magnesium Metabolism, Eugene F. Tucker, M.D., Senior Instructor, St. Louis University School of Medicine; Director of Laboratories, St. Mary's Hospital, St. Louis.
2:00 p.m. Cholinesterase Determination, Marian Winter, B.S., M.T. (A.S.C.P.), Chief Clinical Chemist, St. Mary's Hospital, Kansas City.
2:45 p.m. Education Panel on Medical Technology, Moderator: Mrs. Audrey Wines, B.S., M.T. (A.S.C.P.). Panel Members: John D. Bauer, M.D., Pathologist, DePaul and Faith Hospitals, Instructor, Washington University School of Medicine, St. Louis; Angelo Lapi, M.D., Pathologist, St. Mary's Hospital, Kansas City; Julia F. Hodge, B.S., M.T. (A.S.C.P.), Laboratory Supervisor, DePaul Hospital, St. Louis; Sr. John Brendan, C.S.J., St. Joseph's Hospital, Kansas City.
3:30 p.m. Routine Urinalysis, Dr. Hollis Allen, Pathologist, Clinical Pathological Laboratory, St. Louis.

Wednesday, April 16, 1958

9:00 a.m. Laboratory Identification of Indigenous Hospital Staphylococcal Infection by Bacteriophage Typing, Leonard F. Laskowski, Jr., Ph.D., Assistant Professor of Pathology, St. Louis University School of Medicine; Consultant in Microbiology to St. Mary's Group of Hospitals, St. Louis.
10:00 a.m. Observations on the Epidemic of Asian Influenza in the St. Louis Area, Goronwy O. Broun, M.D., Professor of Internal Medicine and Director of the Department, St. Louis University School of Medicine, St. Louis.
11:15 a.m. Exfoliative Cytology, Joint Session with Missouri State Medical Association.
2:00 p.m. Hematology Seminar.
White Cell Antibodies, Thomas E. Brittingham, M.D., Instructor in Medicine, Trainee of National Institutes of Health, Washington University School of Medicine, St. Louis.
Electrophoresis of Hemoglobins—Paper, Starch, and Agar, Virginia Minnich, M.S., Research Associate in Medicine, Washington University School of Medicine, St. Louis.
Bone Marrow Transplantation, William J. Harrington, M.D., Associate Professor of Medicine, Washington University School of Medicine, St. Louis.
Coordinated talk on "Hemolytic Disease of the Newborn," Drummond H. Bowden, M.B., Ch.B., M.R.C.P. and James P. King, M.D., St. Louis.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From the Medical Schools

WASHINGTON UNIVERSITY

Faculty Award

Dr. Robert M. O'Neal, assistant professor of pathology, Washington University School of Medicine, has received a 1958-59 Lederle Medical Faculty Award. The award, administered by an independent committee of professors from medical schools throughout the United States, will provide Dr. O'Neal's salary for three years and funds for travel to scientific meetings. Recipients of Lederle Medical Faculty Awards must hold faculty rank in their medical schools and must have demonstrated capacities both as teachers and investigators in departments of anatomy, biochemistry, microbiology, pathology, pharmacology or physiology. Only one candidate from any school is considered each year. Dr. O'Neal joined the medical school staff in 1954 as instructor in pathology, later serving as pathologist at Greenwood Hospital, Greenwood, Miss. He returned to Washington University Medical School last year and is conducting research in the field of pulmonary and cardiovascular diseases. Dr. Sarah A. Luse, associate professor of pathology at Washington University School of Medicine, received the Lederle Medical Faculty Award two years ago.

Grants

Grants totaling $160,568 have been awarded to the Washington University School of Medicine by the National Foundation for Infantile Paralysis, it was announced recently. A five-year grant of $138,066 will be used to support a new program at the medical school for teaching the technics and concepts of total rehabilitation to graduate and undergraduate medical students and to persons in other health professions including occupational therapy, physical therapy, orthopedic technology, x-ray technology and hospital administration. A second grant of $22,502 will be used for research to try to determine why some cells of the central nervous system are destroyed by polio virus while others survive. The rehabilitation grant of $138,066 will be supervised by Dr. Oliver H. Lowry, dean of the School of Medicine. Dr. Robert E. Shank, head of the department of preventive medicine, will coordinate the program. One of 15 pilot projects now operating under grants from the National Foundation in medical schools across the country, the rehabilitation teaching program, while it directly benefits medical students, has the larger aim of helping to determine what the students should be taught in this field and how such teaching may best be accomplished. The project will be housed in the University's new Irene Walter Johnson Institute of Rehabilitation, on which construction will be completed in the spring of 1959. The research grant of $22,502 for work on cells of the central nervous system will be directed by Dr. Eli Robins, associate professor of psychiatry at the School of Medicine.

Lecture, Meeting

Dr. Arthur Kornberg, professor and chairman of the department of microbiology, recently gave the Harvey Lecture in New York City. He spoke on the "Enzymatic Synthesis of Deoxyribonucleic Acid (DNA)." The Harvey Lectures, sponsored by the Harvey Society, are under the patronage of the New York Academy of Medicine.

Three faculty members presented research papers at a meeting of the Washington University Medical Society held January 22 at the Medical Center. Dr. Fred T. Caldwell, Jr., assistant and American Cancer Society clinical fellow in surgery at Washington University Medical School, spoke on "The Effect of Total Thyroidectomy on the Oxygen Consumption and Water Vaporization of Burned and Unburned Albino Rats." "Physiology and Phylogeny of the Pain Tracts" was discussed by Dr. George H. Bishop, professor emeritus of neurophysiology and lecturer in neurophysiology, and Dr. Morris Kenton King, instructor in medicine and in preventive medicine, reported on "Studies on the Fever of Acute Bacterial Infections." The research for this paper was conducted in the department of microbiology at Johns Hopkins University School of Medicine in collaboration with Dr. W. Barry Wood, Jr., vice-president, Johns Hopkins Medical Institutions.

SAINT LOUIS UNIVERSITY

Desloge Jubilee Lecture Series

Members of the Missouri State Medical Association have been invited to attend a lecture series to be held throughout the Silver Jubilee year of Firmin Desloge Hospital, the main teaching hospital of the Saint Louis University School of Medicine.

The Department of Ophthalmology is presenting its one day program, Thursday, March, 27. The program will begin with registration in Miller Hall of Firmin Desloge Hospital at 8:30 a.m. An address of welcome by Dr. James W. Colbert, Jr., Dean, Saint Louis University School of Medicine, will open the scientific session.

Making plans for Firmin Desloge Hospital Jubilee Lecture Series are: Dr. William H. Vogt, assistant professor of clinical gynecology and obstetrics, chairman of the Jubilee planning committee: John B. Warner, associate director of the hospital; Dr. William A. Knight, Jr., associate professor of internal medicine, and Dr. C. Rollins Hanlon, director of the department of surgery. Drs. Knight and Hanlon are members of the committee.

Speakers and their subjects will include: Dr. Bernard Becker, professor of ophthalmology, Washington University, "The Role of Electrotonography in the Management of Glaucoma"; Dr. V. Everett Kinsey, professor of ophthalmic chemistry, Wayne University College of Medicine and assistant director of research, Gresge

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Eye Institute, Detroit, "Lens Metabolism in Normal and Diabetic Animals"; Dr. Paul A. Chandler, associate clinical professor of ophthalmology, Harvard University, "Practical Considerations in the Management of Narrow Angle Glaucoma," and Dr. Hermann M. Burian, professor of ophthalmology, College of Medicine, State University of Iowa, "Chamber Angle Studies in Developmental Glaucoma." The program will adjourn at 4:30 p.m. for the meeting of the St. Louis Ophthalmological Society. Cocktails and dinner will be served at the Park Plaza Hotel. Dr. Elmer J. Ballantine, senior clinical instructor of opthalmology, department of surgery, Western Reserve University, will speak on "Clinical Tonography" at 8:30 p.m.

Two scientific programs were held during the month of February. The Internal Medicine Department sponsored a three-day program, February 6, 7, and 8. Guest lecturers included: Dr. R. Bruce Logue, associate professor of internal medicine, Emory University, who spoke on "Pitfalls in Electrocardiography"; Dr. Robert J. Huebner, chief of viral and rickettsial diseases, National Institute of Health, who spoke on "Respiratory Viruses," and Dr. Karl O. Pfuetz, Director, Chicago State Tuberculosis Sanitorium, who spoke on "The Problem of the Patient With the Open Negative Cavity." Members of the department who participated in the program included: Drs. Richard L. Sterkel, William A. Knight, D. C. Weir, L. V. Mulligan, R. William Burmeister, James E. Lewis, Joseph B. Vacca, John J. Budd, Jr., Richard A. Reider, Donald W. Bussmann, J. Gerard Mudd, Paul Murphy, Mario Pianetto, Joseph Lucido, Herbert C. Sweet, James Vest, William Werner, G. O. Broun and Robert E. Mack.

The Department of Obstetrics and Gynecology sponsored a program on February 13 which featured six experts in the field of cancer. Dr. Joseph A. Hardy, Jr., director of the department of obstetrics and gynecology moderated the symposium titled "Carcinoma of the Female Pelvis." Speakers and their subjects included: Dr. Herbert E. Schmitz, professor of obstetrics and gynecology, Loyola University School of Medicine, Chicago, "Radiologic Treatment of Carcinoma of the Cervix"; Dr. Willis E. Brown, professor of obstetrics and gynecology, University of Arkansas School of Medicine, Little Rock, "Surgical Treatment of Carcinoma of the Cervix"; Dr. John L. McKelvey, professor of obstetrics and gynecology, University of Minnesota School of Medicine, "Treatment of Carcinoma of the Uterine Fundus"; Dr. Franklin L. Payne, professor of obstetrics and gynecology, University of Pennsylvania School of Medicine, Philadelphia, "Additional Aspects of the Treatment of Carcinoma of the Uterine Fundus"; Dr. Willard M. Allen, professor of obstetrics and gynecology, Washington University School of Medicine, "Radioactive Isotopes in the Treatment of Carcinoma of the Female Pelvic Organs," and Dr. Allan C. Barnes, professor of obstetrics and gynecology, Western Reserve University School of Medicine, Cleveland, Ohio, "Treatment of Carcinoma of the Ovary." The program concluded with the evening meeting of the St. Louis Gynecological Society.

Other departments to hold sessions throughout the Jubilee year will be: Department of Orthopedic Surgery, April 21; Department of Pathology, May 16; Department of Neurology and Psychiatry, September 8; Department of Surgery, September 17, and Department of Pediatrics, October 15 and 16. An Inter-Departmental program to be held November 19 will conclude the lecture series.

Members of the Missouri State Medical Association planning to attend any part of the lecture series are urged to make reservations in advance, as seating in Miller Hall is limited to 150. Advance reservations may be made by writing to: Dr. William H. Vogt, Jr., Chairman, Firmin Desloge Committee, 1325 S. Grand, St. Louis 4, Mo.

UNIVERSITY OF MISSOURI

Meetings Held at the Medical Center

The members of the newly organized Gray Ladies attended the last lecture in their course of orientation on January 9, 1958, at the Auditorium of the Medical Center. Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, spoke to the thirty-three members present on "Medical Staff" after which Mrs. Effie Lou Sluyter, Director of Nursing Service, and Dr. Stephenson held a question and answer period explaining administrative procedures. The group will begin their on-the-ward training and when that period of training is completed in February will receive their Gray Ladies' cap and pin. The Gray Ladies are a voluntary service organized under the sponsorship of the Red Cross.

Meetings

The first of a series of lectures on medical history was presented January 15, 1958, at the Medical Center by Roderick E. McGrew, assistant professor of History at the University of Missouri. Professor McGrew spoke on "Social and Political Significance of the Russian Cholera Epidemic (1830-1832)." This series of lectures is cosponsored by the Medical Center and the local chapter of the Student American Association and is to be an informal group meeting each month to hear a paper by a member or a guest and for discussion. The speakers will be drawn from the Medical Center, the University, and from local persons interested in the field. The next talk will be by Dr. Raymond Vickers, instructor in the Department of Medicine, on February 12, and he will speak on "The History of St. Bart's Hospital."

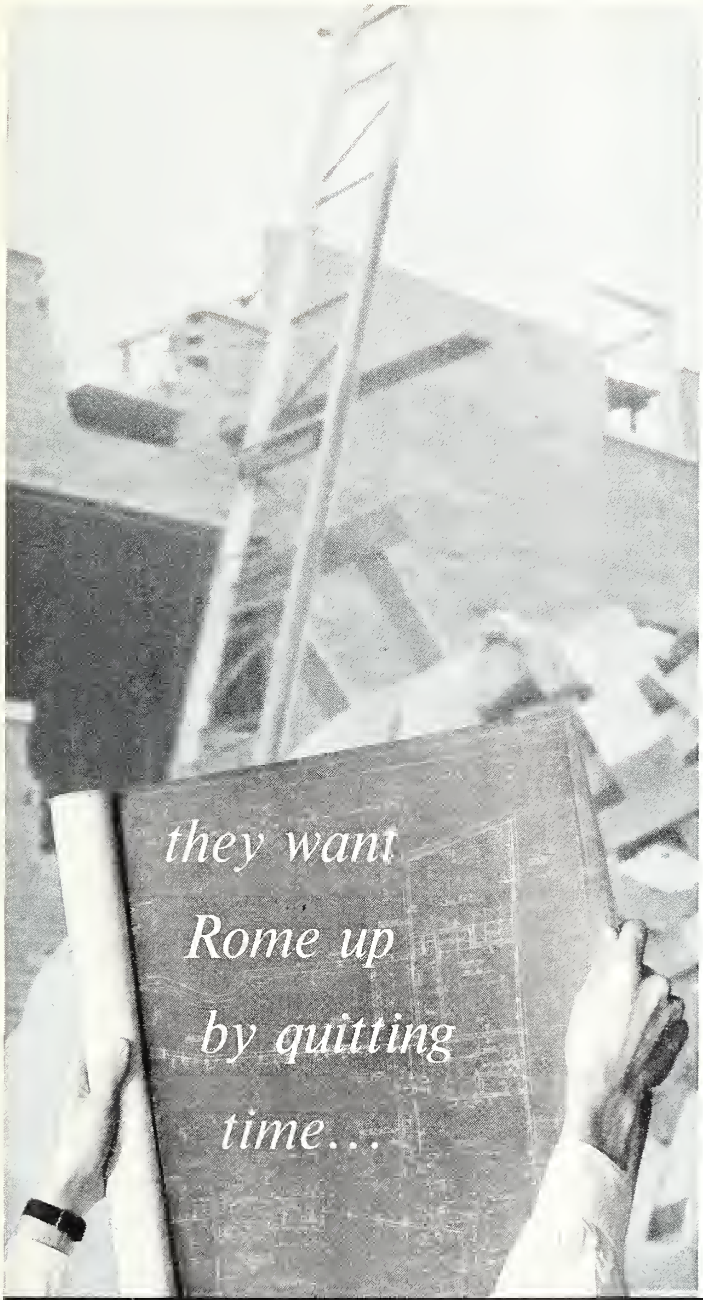
Trips and Talks

Dr. Roscoe L. Pullen, Dean of the School of Medicine, spoke at a meeting sponsored by the University of Missouri School of Religion on January 9, 1958, on the subject of "Roles of Medicine and Religion in Health." On January 11, Dr. Pullen spoke at the meeting of the Columbian Chapter of the Daughters of the American Revolution held in Columbia on the subject of "Resources and Research in Medicine." He also attended the Conference on Aging held by the State Division of Health in Jefferson City on January 12.

Dr. Stuart O. Landry, assistant professor of anatomy, visited the Department of Anatomy in the Medical School of Louisiana State University at New Orleans to observe their teaching and research facilities.

The following members of the staff of the Department of Biochemistry attended a Biochemistry Seminar by Dr. M. J. Coon of the University of Michigan on the subject of "The Mechanism of Carbon Dioxide Fixation" on December 20, 1957 in Kansas City, Kansas: Dr. O. J. Koeppe, associate professor; Dr. John M. Franz, assistant professor; Dr. Arnold A. White, assistant professor; Finley Marshall, graduate assistant; and Ralph Helmsen, graduate assistant.

Dr. John H. Killough, associate professor and acting chairman of the Department of Medicine, spoke at a Heart Forum held on January 15, in Mexico, Missouri,



To cut daytime lethargy

(and keep rauwolfia potency)

in treatment of hypertension:

Mounting clinical evidence confirms the view that Harmonyl produces much less lethargy while reducing blood pressure effectively. In the most recent study[1], Harmonyl was evaluated in comparison with reserpine and other rauwolfia alkaloids. Harmonyl *was the only alkaloid which produced a hypotensive response closely matching that of reserpine, coupled with a greatly reduced rate of lethargy.* Only one Harmonyl patient in 20 showed lethargy, while an average of 11 out of 20 showed lethargy with reserpine, and 10 out of 20 with the alseroxylon fraction.

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for your hypertensives who must stay on the job

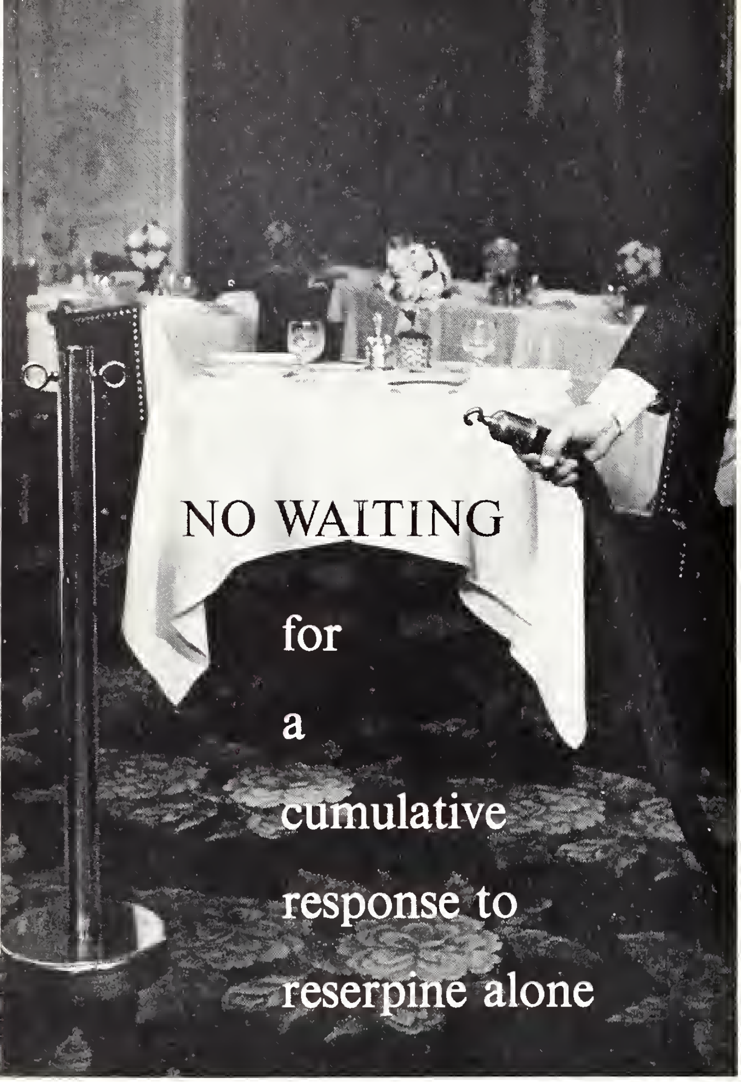
Harmonyl*

(DESERPIDINE, ABBOTT)

while the drug works effectively . . . so does the patient

[1] Comparative Effects of Various Rauwolfia Alkaloids in Hypertension; *Diseases of the Chest;* in press.

*TRADEMARK



in anxiety and hypertension

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(Harmonyl* and Nembutal®)

Calmer days, more restful nights starting *first* day of treatment, through synergistic action of Harmonyl (Deserpidine, Abbott) and Nembutal (Pentobarbital, Abbott). Lower therapeutic doses, lower incidence of side effects. Each Harmonyl-N Filmtab contains 30 mg. Nembutal Calcium and 0.25 mg. Harmonyl. Each Harmonyl-N *Half-Strength* Filmtab combines 15 mg. Nembutal Calcium and 0.1 mg. Harmonyl. Abbott

® Filmtab—Film-sealed tablets, Abbott; pat. applied for

801060 *Trademark

and sponsored by the Audrain County Heart Council and the Mexico *Ledger*. Dr. Killough discussed "Heart Disease in the Middle-Aged and Aged" and summarized the progress being made in the fight against diseases of the heart and circulation. This was followed by a question and answer period. Approximately 100 people attended this Forum.

Dr. J. M. Martt, assistant professor of medicine, visited the cardiovascular laboratories of Dr. W. Koff and Dr. H. Zimmerman in Cleveland, Ohio, and Dr. D. Fisher in Pittsburgh, Pennsylvania, from January 12 to 17. While there, he viewed a demonstration of the operation of an artificial kidney unit similar to the one at the University of Missouri Medical Center. Dr. Martt also appeared on the program of the open public forum held by the Boone County Heart Council in cooperation with the Columbia P.T.A. Council and the Boone County Medical Society on December 5. Also on the program were Dr. John Logue and Dr. E. L. Washington, both of Columbia.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, met with the staff of St. Joseph's Hospital on December 16, 1957, and discussed with them the office practice of Exfoliative Cytology.

On January 6, 1958, Dr. C. K. Leeper, assistant professor of pathology, and technologists Mrs. Martha Lorah and Miss Nancy Lindberg, attended a meeting on postgraduate instruction in medical technology sponsored by the University of Kansas School of Medicine held in Kansas City, Kansas.

Dr. Frederic E. Simpson, assistant professor of pediatrics, spoke to the Ozark Medical Society in Mt. Vernon, on December 10, 1957, on the subject "The Child That Coughs." Approximately 40 people attended this meeting.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, visited the Department of Surgery at the University of Iowa, Iowa City, Iowa, on January 9 and 10.

Dr. Samuel P. W. Black, associate professor of neurosurgery, was recently appointed as a member of the Missouri Committee on Trauma of the American College of Surgeons. On December 20, 1957, Dr. Black spoke at a meeting of the Callaway County Medical Society on "Intra-cranial Vascular Accidents."

Dr. Thomas J. Baker, assistant professor of plastic surgery, was a member of a panel at the Singleton Surgery Conference held on January 3 and 4 in Galveston, Texas.

Dr. Kenneth K. Keown, professor of anesthesiology, spoke at the meeting of the Boone County Medical Society on January 7 on the subject "Anesthesia for Patients With Heart Disease." Approximately 60 people were present for the meeting. On January 15, Dr. Keown was the guest speaker for the Annual Meeting of the St. Louis Society of Anesthesiology held in St. Louis. He spoke on "Anesthesia for Intra-cardiac Surgery." Approximately 125 people were in attendance.

Gifts and Grants

The following faculty members have received grants from the University Research Council to be used as listed:

Dr. James T. Barrett, assistant professor of microbiology, for the cost of maintaining animals and other expenses and the purchase of special equipment to be used in the study of the human pathogenic fungus, Geotrichum candidum.

Dr. T. D. Luckey, professor of biochemistry, for the

STOP respiratory congestion orally

relief in minutes . . lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

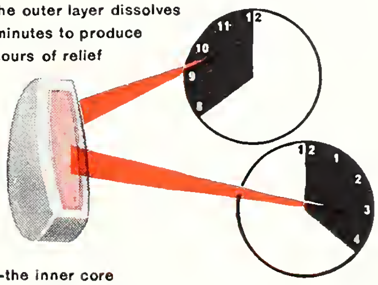
Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: 1 tablet in the morning, afternoon, and in the evening if needed.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours— provides "around-the-clock" freedom from congestion on just three tablets a day

first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief



then—the inner core disintegrates to give 3 to 4 more hours of relief

Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

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"timed-release" tablets

STOP *running noses . . . and open stuffed noses orally*

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purpose of buying animals and ingredients for a purified diet to be used in studies on comparative nutrition.

Dr. A. W. Merrick, assistant professor of physiology, and Dr. K. L. Fitch, instructor in anatomy, for the purchase of equipment and technical assistance in the study of carbohydrate metabolism of the oviduct of the frog.

Dr. Henry A. McQuade, associate professor of radiobiology, for the purchase of equipment and additional assistance in the study of genetic effects of radioactive elements.

Dr. R. L. Russell, assistant professor of pharmacology, for the purchase of an explosive-proof centrifuge with supplementary equipment to be used in the study of the distribution and concentration of barbiturates in the various cellular components of the body.

Dr. Theodore E. Keats, associate professor of radiology, for travel expenses to Washington, D. C., or New York City in connection with preparing an "Atlas of Radiologic Measurement."

Dr. Arnold A. White, assistant professor of biochemistry, for the purpose of expenses for animals, diet, and animal house charges in connection with studies of progressive muscular dystrophy.

Dr. Michael H. Ivey, assistant professor of microbiology, for the purchase of animals to be used in the study of hemagglutination test in the detection of trichinosis.

Dr. Joseph H. Flynn, professor of pathology, for publication costs in connection with an article on "Necrotic Arachnidism."

A grant has been awarded Dr. A. W. Merrick, assistant professor of physiology, by the United States Public Health Service in the amount of $4,140. This grant is to be used for the study of mammalian cardiac glycogen changes as influenced by the basic cations and metabolic poisons.

New Appointments

Dr. Robert Edwin Paulette has been appointed instructor in surgery and fourth year resident effective July 1. Dr. Paulette received his B.S., M.D., and C.M. all from McGill University in Montreal, Canada. He is at present at New York University Bellevue Medical Center, Postgraduate Medical School.

Dr. Leovigildo Cokingtin has been appointed assistant instructor in pediatrics and first year resident effective January 1. Dr. Cokingtin received his M.D. in 1955 from the University of St. Tomas, Philippines. He is coming to the University of Missouri from the resident staff of Children's Mercy Hospital in Kansas City.

Dr. Humberto Bernal has been appointed assistant instructor and second year resident in surgery effective January 1, and ending March 31, 1958. He is at present a second year resident in general surgery at Missouri Baptist Hospital, St. Louis.

A.M.A. DRAFTS NEW LAW TO CUT POISON DEATHS

After a 15 months' study, the Committee on Toxicology of the American Medical Association announced today that it has formulated a broad and encompassing model law for the precautionary labeling of hazardous substances in commercial, household, and industrial chemical products.

Speaking before the Section on Food, Drug and Cosmetic Law of the New York Bar Association today, Bernard E. Conley, Ph.D., Chicago, secretary of the A.M.A. committee, said the proposed legislation is intended as a model for uniform laws to require declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products used in the home and elsewhere.

"The proposed model law," Conley said, "was drafted after an exhaustive review of existing statutes revealed a hodge-podge of local regulations for the labeling of chemicals."

The law is directed against those hazardous substances defined as toxic, irritating, sensitizing, corrosive, flammable, explosive, or radioactive under customary or reasonably anticipated conditions of handling and use.

The law, as drafted by the A.M.A. committee headed by Dr. Torald Sollman, Cleveland, Ohio, would: (1) Require the labeling of all chemical products containing hazardous substances which are not now regulated; (2) require the same labeling standards to apply to chemicals for export as those for domestic consumption, thereby obviating the common complaint that less-than-standard products are sold to foreign customers; (3) prohibit re-use of food and drug containers bearing their original labels; (4) require identification and warnings for strongly sensitizing chemicals which cause allergic or inflammatory reactions in living tissue on contact.

Conley said a significant departure in drafting the new law was deletion of the word "poison" from the bill's provisions. This decision was reached, he said, after surveys showed a wide variation in existing legal limits for poison and a lack of agreement among scientists on a definition of the term.

"The A.M.A. committee," he said, "feels that reference standards for toxicity based on animal tests provide a more consistent and reliable index of the poisonous properties of chemicals."

The committee's work had strong support not only from the chemical industry but also from the National Drug Trade Conference and the American Public Health Association.

Conley told the bar association that inadequate labeling of potentially harmful chemicals has been a major handicap to a successful attack on the problem of accidental poisoning.

"Lack of information about hazardous ingredients in certain emergencies," he said, "may enhance the gravity by complicating or delaying treatment."

The A.M.A. official said the latest mortality statistics show that 1,431 persons died from accidental overexposure to packaged chemicals in 1955. "One quarter of these fatal accidental poisonings by liquid and solid substances occurred in preschool age children and over 80 per cent occurred in the home. Non-fatal poisonings are estimated to be 100 to 150 times the number of fatalities," he said, adding, "and these are impressive statistics for a cause of injury and death which is considered to be largely preventable."

Conley said that while tremendous strides have been made in recent years in reducing mortality from infectious diseases, no comparable improvements have occurred in the prevention of accidental poisonings.

While children are the most frequent victims, the fault of negligence does not necessarily rest at the doorstep of the parents, Conley added.

"Most of the children who take poison are active and curious," he said, "and most of the substances ingested by them are easily accessible. Even the parents failed to realize that a number of common household substances were poisonous until after the accident occurred. The model law will help parents become more aware of the hazards and thereby reduce fatalities."

Book Reviews

THE MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS, by John Albert Key, M.D., St. Louis, Clinical Professor Emeritus of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and City Hospitals; and H. Earle Conwell, M.D., Birmingham, Alabama, Associate Professor of Orthopedic Surgery, University of Alabama School of Medicine; Associate Orthopedic Surgeon, University Hospital; Attending Orthopedic Surgeon, St. Vincent's Hospital, Baptist Hospitals; Chief of the Orthopedic Service, South Highland Infirmary; Consulting Orthopedic Surgeon, Veteran's Hospital, Tuscaloosa, Alabama, and Carraway Methodist Hospital, Birmingham, Alabama; Chief of the Conwell Orthopedic Clinic, Birmingham, Alabama. Sixth Edition. The C. V. Mosby Company, St. Louis. 1956. Price $20.00.

The sixth edition of Key and Conwell's text "The Management of Fractures, Dislocations and Sprains" again presents a comprehensive review and revision of the subject material. As the authors point out, two hundred additions and deletions in photographs, illustrations, radiographic reproductions and sketches have been made. Chapters on "Compound or Open Fractures and War Wounds," "Injuries of the Spine," "Injuries in the Region of the Hip," and "Injuries in the Region of the Ankle" have been amplified and the most recent phases of treatment included.

It is interesting to note that, in view of their care becoming so highly specialized, chapters on "Fractures of the Skull and Brain Trauma," and "Fractures of the Jaw and Related Bones of the Face," previously included, have been omitted from this sixth edition.

In the chapter on "Injuries in the Region of the Hip," the conservative tenor and the suggestions made for reconstructive operations on the hip, as well as the cautious regard with which substitution prosthesis was discussed, were well taken. As one of the illustrations in this chapter demonstrated, if and when substitution prosthesis are used, it is important that they are seated properly not only in the ocetabulum, but in the shaft of the femur as well.

This text is now a standard one, used avidly by residents in training, general practitioners, general surgeons, and evaluated well by orthopedic surgeons, presenting as it does various methods of treating particular traumatic bone affections. It needs no further recommendation other than the assurance that it continues to maintain its former level of excellence. M. R.

THE PRINCIPLES AND METHODS OF PHYSICAL DIAGNOSIS: CORRELATION OF PHYSICAL SIGNS WITH CERTAIN PHYSIOLOGICAL AND PATHOLOGICAL CHANGES IN DISEASE, by Simon S. Leopold, M.D., Professor of Clinical Medicine, School of Medicine and Graduate School of Medicine, University of Pennsylvania; Chief of the Thoracic Clinic, Hospital of the University of Pennsylvania. With a Chapter on Sounds From the Thorax: Acoustic Principles by S. Reid Warren, Jr., Sc.D. in E.E., Professor of Electrical Engineering, the Moore School of Electrical Engineering, University of Pennsylvania. Second Edition. 379 Illustrations and

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to relieve . . . and thereafter **prevent** . . . fecal dehydration in:

pregnancy

magnocyl is effective in reducing danger from straining during defecation throughout the pregnancy period. One capsule daily is usually sufficient to maintain softness of stool for easy elimination without laxation.

diverticulitis

Except in severe cases, one magnocyl capsule t.i.d. for the first week, then one capsule daily thereafter will soften fecal matter—clear intestinal tract of fecal obstruction and gaseous distention.

* The active ingredient in magnocyl is not precipitated by chemical combinations in the digestive process—retains wetting effect under all conditions.

magnocyl capsule contains polymer of ethylene oxide and propylene oxide—250 mg.

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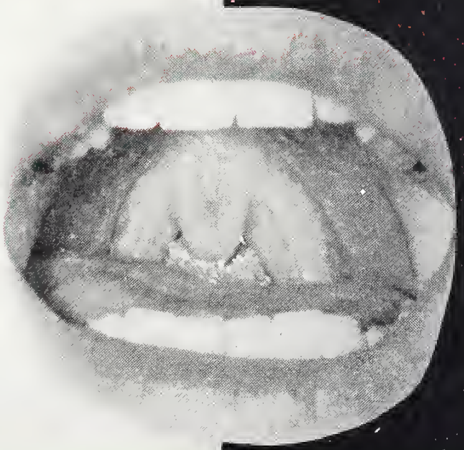

FROM INFECTION*

FROM IRRITATION

*as adjunctive therapy only

25 Color Plates. W. B. Saunders Company, Philadelphia. 1957.

This is the second edition of Leopold's Textbook of Physical Diagnosis. The first edition was published in 1952, and had several characteristics that made it an excellent textbook. The most attractive characteristic was its brevity. There is little unnecessary discussion in this book. Another attractive feature was the profusion of illustrations. Both of these characteristics have been preserved. The second edition has been amplified and enlarged, for now there are not only the same number of illustrations as in the original edition but, in addition, a great many diagrams and also a large number of photographs of transverse and longitudinal sections of the various areas of the body under consideration. The subject matter is sound in every respect and, all in all, the book is much more inviting than some of the larger, more unwieldy textbooks of physical diagnosis. C. J. S.

Clinical Proctology, by J. Peerman Nesselrod, M.D., Assistant Professor of Surgery, Northwestern University Medical School; Attending Surgeon, Division of Proctology, Evanston Hospital, Evanston, Illinois; Diplomate American Board of Proctology; Captain (MC), USNR. 1957. Second Edition, illustrated. W. B. Saunders, Philadelphia, Pa. Price $7.00.

This is a concise volume on the diagnosis and treatment of the most common anorectal diseases.

The methods of medical management and surgical procedure found most useful by the author are clearly and thoroughly outlined.

The title "Clinical Proctology" is somewhat misleading in that the colonic portion of proctology has been omitted.

Brevity has been attained by omitting long bibliographies, review of the literature and controversial material. This book is not submitted as a complete text on proctology, and its brevity makes it an excellent quick reference source for the busy general practitioner or internist.

This book is also valuable for the use of the beginner in proctology, such as students, interns and residents.

F. B. C.

The Riddle of Stuttering, by C. S. Bluemel, M.D., Fellow of the American Speech and Hearing Association. The Interstate Publishing Company, Danville, Illinois. 1957. Price $3.50.

This is a most interesting discussion of stuttering and stammering by a physician who has psychiatric training as well as an excellent knowledge of speech disorders.

The author "seeks an answer to the riddle of stuttering in the field of psychiatry." In developing his thesis he reviews the basic organization of speech skills and the factors entering into the disorganization of speech. At great length the many factors believed to play a role in the development of primary stammering are reviewed and the confusions, tensions and phobias of secondary stammering are recited in great detail.

The author believes the answer to the riddle lies in the personality and neuromuscular makeup of the stammerer. Therapy is directed, therefore, to a reorganization of the basic speech patterns with emphasis upon the thinking processes in speech. The personality and phobia problems of the secondary state are treated by psychotherapy. B. H. S.

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PREVENTIVE GERIATRICS
a FIRST from TUTAG!

Now — 20 to 1 Androgen-Estrogen (activity) ratio*!

Each Magenta Soft Gelatin Capsule contains:

Methyltestosterone	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estradiol	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methionine	20 mg.
Vitamin E	1 I.U.	Inositol	20 mg.
Cal. Pantothenate	3 mg.		

Write for Latest Technical Bulletins.

*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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FINANCIAL STATEMENT FOR THE YEAR 1957

LENNERTSON AND COMPANY
CERTIFIED PUBLIC ACCOUNTANTS

ROBERT A. LENNERTSON, C. P. A.
MEMBER—AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

RICHARD J. LENNERTSON, C. P. A.
SAINT LOUIS 5, MISSOURI

February 7, 1958

Missouri State Medical Association,
634 North Grand Boulevard,
St. Louis, Missouri

Gentlemen:

The books of account of the Missouri State Medical Association were examined for the year 1957 and a report thereon is presented together with the following statements:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C	Statement of Committee and Meeting Expenses
Exhibit D	Dues Receivable and Membership by Counties

It should be noted that members' dues are taken into income on the cash basis; whereas the other accounts are maintained on the accrual basis. Items paid in advance, except members' dues, are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1957, and the Income Statement for the year ended with that date were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transactions.

Cash in banks, as shown by the books, was reconciled with the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund of $25.00 was counted and United States Bonds with a par value of $75,000 were verified by a statement from Mercantile Trust Company, custodian. Bond interest income of $1,315.08 was properly accounted for on the books. Recorded cash receipts for the year were traced in total into the bank accounts as deposits, and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file. Selective tests were made of the income and expense accounts for the period. It was noted that JOURNAL space was contributed to the United States Treasury Department for bond advertising and to members and widows of members for small classified ads.

Income Statement

The financial result of the activities of the Association for the year 1957 was an excess of income over expenses of $33,538.27 as set forth in Exhibit B. Exhibit C supports Exhibit B and presents a summary of committee and meeting expenses for the year.

Balance Sheet

The financial position of the Association at December 31, 1957, is presented in Exhibit A. Additional comments follow on Balance Sheet accounts.

Accounts Receivable—Advertisers $10,263.93, represented the unpaid balances due from Advertisers at the year end. Of this amount $10,170.93 was due from the State Journal Advertising Bureau for November and December 1957.

Unpaid Dues of $1,025.00, offset by a reserve account in like amount, represents 1957 dues of delinquent members carried at December 31, 1957, at the requests of the local societies. Other delinquent members were dropped from membership in accordance with the by-laws. Exhibit D presents a summary of unpaid 1957 dues, prepaid 1958 dues and membership by counties, as shown by the records of the Association.

Furniture and Fixtures continue to be stated in the fixed amount of $1,000. Purchases and repairs during the year were charged to expense in lieu of depreciation.

Records and data on file were carefully reviewed for liabilities at December 31, 1957, and it is believed that all current liabilities of substantial amount are included in the Balance Sheet. A contingent liability of $600 is reported in connection with two malpractice suits pending against members. The Association is required to furnish assistance in an amount not to exceed $300 in each case, under the provisions of its by-laws.

Exhibitors have made advance payments of $3,117.50 for 1958 annual session exhibit space and these payments will be taken into income when earned in 1958.

General

Insurance policies were inspected and the following insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80 per cent co-ins.)	$3,000
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$25,000/50,000
Treasurer	Fidelity Bond	$20,000
Employees (except Vice President and Secretary)	Fidelity Bond	$5,000
Employees (Executive Secretary, Field Secretary and Business Manager)	Endowment Life Policies with Disability Benefits (Cash Value $20,992.92) 3 policies—coverage each	$12,000
Automobiles of Executive Secretary and Field Secretary	Non-ownership—Bodily Injury	$50,000/100,000
	Non-ownership—Property Damage	$5,000

Subject to the comments thereon, the attached statements, in our opinion, present fairly the financial position of the Missouri State Medical Association at December 31, 1957, and the results of its activities for the year then ended, in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON & COMPANY,
Certified Public Accountants.

EXHIBIT A

Missouri State Medical Association
Balance Sheet, December 31, 1957

Assets

Cash		
Mercantile Trust Company (Treasurer's Account)	$50,436.24	
Mercantile-Commerce National Bank (Secretary's Account)	267.51	
Petty Cash Fund	25.00	$ 50,728.75
United States Bonds		
Series G 2½%—Cost and Par Value (Maturing 1958 $25,000; 1959 $10,000)	$35,000.00	
Series K 2¾%—Cost and Par Value (Maturing 1967)	5,000.00	
Treasury Notes 4%—Par Value $35,000 (Maturing 1961 $10,000; 1969 $25,000)	35,168.91	75,168.91
Accounts Receivable—Advertisers		10,263.93
Accounts Receivable—Others		344.02
Dues Receivable—Exhibit D		1,025.00
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expense		836.32
Advances for Travel Expense		366.93

Liabilities

Accounts Payable		
Supplies and Expenes	$ 4,854.33	
Payroll Taxes	1,185.46	$ 6,039.79
Dues Collected for American Medical Association		37.50
Deferred Credit to Income		
Advance Payments by Exhibitors ..		3,117.50
Contingent Liability to Members on Two Malpractice Suits—$600.00		....
Reserve for Uncollected Dues		1,025.00
Reserve for Future Activities		
Balance January 1, 1957	$95,608.87	
Excess of income over expenses for the year 1957 (Exhibit B)	33,538.27	129,147.14
		$139,366.93

So pure . . . So good . . .
So wholesome for
everyone . . . including
the tiniest tots!
7UP

Nothing does it like Seven-Up!

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when anxiety and tension "erupts" in the G. I. tract...

IN DUODENAL ULCER

PATHIBAMATE*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (400 mg.) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of duodenal ulcer — without fear of barbiturate loginess, hangover or habituation . . . with PATHILON (25 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime. *Supplied:* Bottles of 100, 1,000.

*Trademark ® Registered Trademark for Tridihexethyl Iodide Lederle

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

EXHIBIT B

Missouri State Medical Association
Income Statement for the Year 1957

Particulars	*General Activities*	JOURNAL *Publication*	*Total*
Income			
Dues Received (includes $1.00 per member annually for The JOURNAL)	$105,410.75	$ 3,288.00	$108,698.75
Rentals—Annual Session Exhibit Space	7,800.00		7,800.00
Subscription to The JOURNAL—Nonmembers		201.30	201.30
Advertising Space—The JOURNAL		52,294.62	52,294.62
Interest on United States Bonds	1,315.08		1,315.08
Collection Fees on A.M.A. Dues	852.63		852.63
Rental Income—Office Space	360.00		360.00
Total Income	$115,738.46	$55,783.92	$171,522.38
Expenses			
Salary—Executive Secretary.	$ 8,400.00	$ 4,200.00	$ 12.600.00
Office Salaries	22,339.83	11,169.92	33,509.75
Employees' Retirement Insurance Premiums	2,516.16		2,516.16
Office Rent and Light	4,434.41		4.434.41
Postage	1,680.95	837.89	2,518.84
Stationery, Printing and Office Supplies	2,503.62		2,503.62
Directories and Clipping Service	854.17		854.17
The JOURNAL—Paper, Printing, etc.		33,066.89	33,066.89
Cash Discounts to Advertisers		342.96	342.96
Commissions on JOURNAL Advertising		4,366.60	4,366.60
Telephone and Telegraph ...	2,058.67		2,058.67
Insurance—General	226.14		226.14
Professional Fees	2,818.31		2,818.31
Taxes—Payroll and Personal Property	1,412.15		1,412.15
Traveling Expense—Executive Secretary	1,343.47		1,343.47
Traveling Expense—Field Secretary	2,878.83		2,878.83
Traveling Expense—Assistant Secretary	1,130.28		1,130.28
Committee and Meeting Expenses (Exhibit C)	25.863.70		25,863.70
Equipment Puchases and Repairs in lieu of Depreciation	2,974.21		2,974.21
General Expenses	489.95		489.95
Student Award	75.00		75.00
Total Expenses	$ 83,999.85	$53,984.26	$137,984.11
Net Income for the Period ..	$ 31,738.61	$ 1,799.66	$ 33,538.27

EXHIBIT C

Missouri State Medical Association
Statement of Committee and Meeting Expenses
For the Year 1957

Annual Session		$ 7,278.43
Council Meetings and Councilors' Expenses		5,358.13
Delegates to A.M.A.		3,615.63
Public Relations		6,703.54
Woman's Auxiliary		1,274.30
Committees:		
American Medical Education Foundation	$ 35.52	
Cancer	86.88	
Conservation of Eyesight	82.15	
Hospital and Professional Relations	86.21	
Infant Care	256.88	
Laboratory Medicine	47.81	
Maternal Welfare	28.37	
Medical Economics	63.28	
Mental Health	168.08	
Medical Education and Hospitals	1.50	
Public Policy and Relations	641.59	
Rural Medicine	11.77	
Scientific and Postgraduate Work	45.29	
Veterans' Care	78.34	1,633.67
Total		$25,863.70

EXHIBIT D

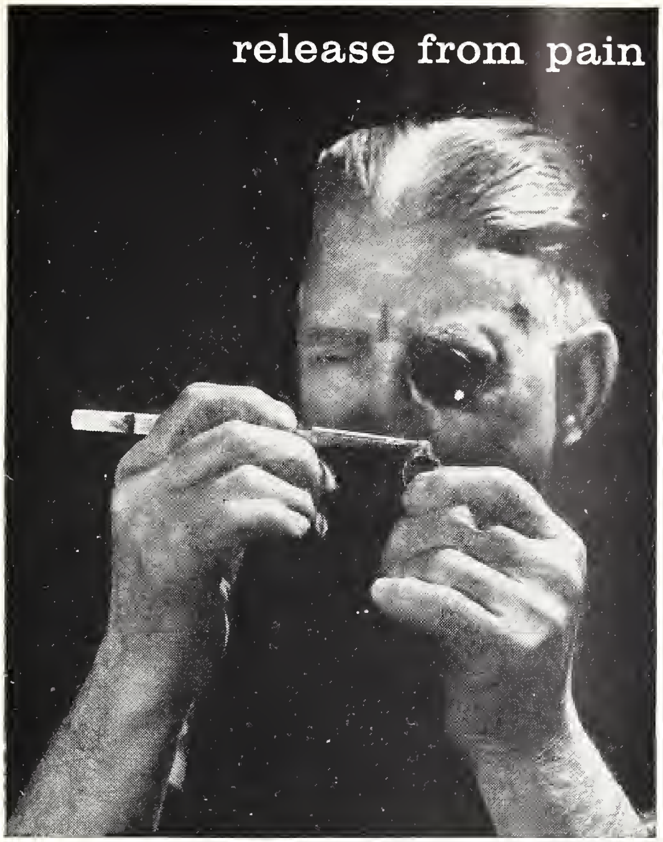
Missouri State Medical Association
Dues Receivable and Membership by Counties
December 31, 1957

Counties	Membership *Total*	*Junior*	*Active*	*Honor*	*Unpaid Dues*	*Prepaid Dues*
Andrew	6		5	1		
Audrain	18	1	16	1	$35.00	
Barton-Dade	10		8	2		
Benton	2			2		
Boone	75	3	66	6	70.00	$75.00
Buchanan	89	2	74	13		
Butler-Ripley-Wayne	31	1	29	1	60.00	
Callaway	19	1	11	7		
Camden	1		1			
Cape Girardeau	49	3	37	9		
Carter-Shannon	2	1	1			
Chariton-Macon-Monroe-Randolph .	30	2	23	5		
Clay	52	13	38	1		
Clinton	6		6			
Cole	39		38	1		
Cooper	13		11	2		
Dallas-Hickory-Polk .	7		6	1		
Dunklin	25	2	19	4		
Franklin-Gasconade-Warren	26		24	2		
Grand River	54	6	41	7		
Greene	140	2	131	7		
Henry	14	2	11	1		
Holt	5	1	1	3	17.50	
Howard	7		7			
Jackson	738	27	606	105	35.00	
Jasper	78	3	63	12	35.00	
Jefferson	17		16	1		
Johnson	11		10	1		
Lafayette-Ray	28	3	21	4	35.00	
Lewis-Clark-Scotland	4		4			
Lincoln-St. Charles ..	24	2	20	2	60.00	
Marion-Ralls-Shelby .	31	1	25	5		
Mid-Missouri	39	3	35	1		
Miller	3		3			
Mineral Area	30	1	27	2		
Moniteau	5		5			
Montgomery	4		3	1		
Morgan	5		5			
Nodaway-Atchison-Gentry-Worth	18		17	1		
North Central	16		8	8		
Ozarks	51	8	37	6	35.00	
Pemiscot	29	6	19	4	35.00	
Perry	13	1	10	2		
Pettis	31		27	4	35.00	
Pike	14	3	7	4	17.50	
Platte	7		7		35.00	
St. Louis City	1,241	88	1,039	114	105.00	612.50
St. Louis County	400	6	372	22	285.00	70.00
Saline	22	1	17	4		
Semo	41	2	31	8		
South Central	26	6	14	6	35.00	
Webster	3		2	1		
West Central	43	1	32	10	95.00	
Totals	3.692	202	3,086	404	$1,025.00 A	$757.50

(A) Delinquent dues of members at December 31, 1957 carried at the request of local societies.

Budget for 1958

Salaries	$ 56,108.00
Office Rent and Light	4,700.00
Postage	5,000.00
Printing, Stationery and Office Supplies	4,500.00
JOURNAL Expense (Paper and Printing)	35,500.00
Telephone and Telegraph	2,000.00
Insurance Retirement Plan	2,700.00
Professional Fees	2,700.00
Taxes, Payroll	1,630.00
Travel Expenses (Executive, Field and Assistant Secretaries)	6,500.00
Committees and Meetings	32,700.00
General Expenses	3,500.00
Furniture and Fixtures	1,500.00
Total	$159,110.00



release from pain and inflammation

with **BUFFERIN**®

IN ARTHRITIS

salicylate benefits with
minimal salicylate drawbacks

Rapid and prolonged relief — with less intolerance. The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

ANOTHER FINE PRODUCT OF BRISTOL-MYERS

Bristol-Myers Company
19 West 50 St., New York 20, N. Y

NEW *"flavor-timed" dual-action*

CORONARY VASODILATOR

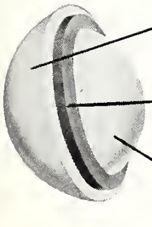
Dilcoron

TRADEMARK

ORAL (tablet swallowed whole)
for dependable prophylaxis

SUBLINGUAL-ORAL
for immediate and sustained relief

of **ANGINA PECTORIS**



NITROGLYCERIN —
0.4 mg. (1/150 grain)—acts quickly

CITRUS "FLAVOR-TIMER" —
signals patient when to swallow

PENTAERYTHRITOL TETRANITRATE —
15 mg. (1/4 grain)—prolongs action

For continuing prophylaxis patient swallows the entire Dilcoron tablet.

Average prophylactic dose:
1 tablet four times daily.

Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

Bottles of 100.

Winthrop LABORATORIES NEW YORK 18, N. Y

BOOK REVIEW

A Woman Doctor Looks at Love and Life. Dr. Marion Hilliard. Doubleday & Company, Inc., Garden City, New York. 1957.

For the young doctor starting out in obstetrics, full of information and secure in the latest of material equipment; for the tired obstetrician who has forgotten the last time a pregnant woman even tried to talk about anything but weight and nausea; for the patient, regardless of age or sex or martial status—for all these, Dr. Hilliard's book has something to offer. That is a large order, a wide coverage, and it may seem as if there would, then, have to be a lack of depth. True, there is no medical storehouse here; it is not a book for quick reference in sudden emergency. But there is depth: a firm, straightforward assessment of love, the power of sex, the difficulties of marriage, the problems of adolescence and old age, and the complications of "female-ness," married or unmarried. By anecdote, by indicating where her own early theories were inadequate so that the reader recognizes this book as the culmination of twenty-five years of experience, and by a vigorous, informal prose style, the author brings her knowledge and understanding into focus: This is the way things are. This is what you can do.

The title is as misleading as it is "flashy." Dr. Hilliard does more than "look at" her subject. She is not a mechanical recorder. She speaks with sympathy born of deep involvement in the worries and fears of countless patients in countless problems. She recommends a sense of humor, patience, generosity—faith. She speaks tersely to husbands who prize virility above all else; to young people whose parents can do nothing right but "who looked pretty good when they sat up with you all night when you were 8 and had pneumonia"; to whining wives who do not want to grow up. She destroys many fears by pointing out the universality of problems that individuals have felt sure were unique. She restores a kind of confidence through frequent allusion to one of her basic tenets—that life is not supposed to be easy and would not be any good if it were. Dr. Hilliard neither sneers at life nor paints it with rosy glow. She accepts it and her readers will be better able to do so, too, thanks to her book.

The editors have, perhaps, done a disservice to the author and the general reader in their efforts to popularize the book. Blurbs taken out of context and used on the back cover sound flippant or brittle. They even promise a rather sophisticated approach. Take the cover off the book and a doctor has a useful ally. It can be given to the premarital patient, the patient wanting a divorce, the patient about to retire from business, the one whose children ask questions, whose teen-agers are a mystery. It is entertaining reading, but, more important, it is vital reading—not because there is any new theory or drug presented, but because there is common sense, fair appraisal on both sides of problems, and useful suggestions for those who live in this age where information is easily come by but where understanding the information is too often neglected by doctors and patients alike.

M.C.C.

PMB-200

"Premarin" with Meprobamate new potency

Each tablet contains 0.4 mg. "Premarin," 200 mg. meprobamate

For undue emotional stress in the menopause

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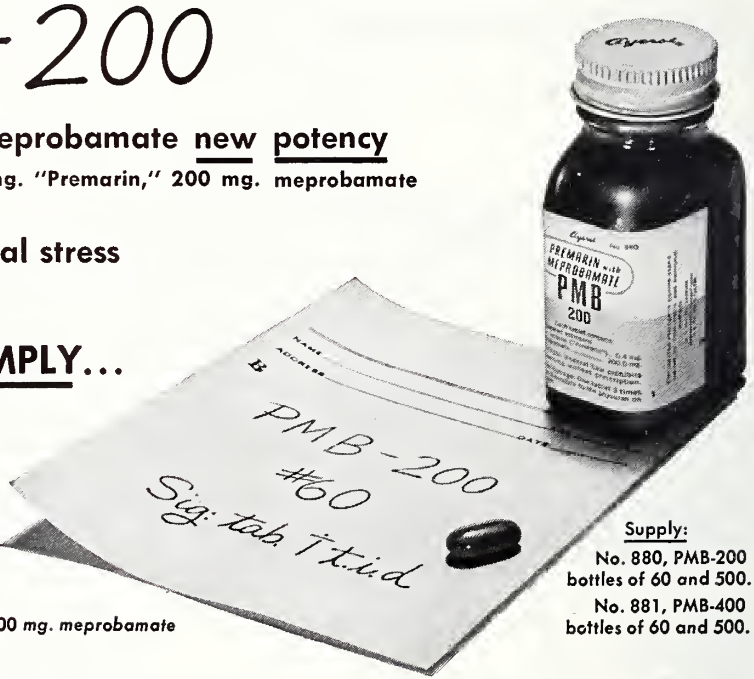

Supply:
No. 880, PMB-200 bottles of 60 and 500.
No. 881, PMB-400 bottles of 60 and 500.

Also available as PMB-400 (0.4 mg. "Premarin," 400 mg. meprobamate in each tablet).

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"Premarin®" conjugated estrogens (equine) Meprobamate licensed under U.S. Pat. No. 2,724,720 5830

Curiosa et Trivia

William B. McCunniff, M.D.

Of the nearly twelve thousand babies born daily in this country, more than three hundred will be mentally handicapped. With proper training and guidance, all but about thirty will be reasonably independent throughout life.

We don't know anyone who is eager for the job . . . but no physician has ever been President of the United States. However, William Henry Harrison (ninth President) at one time was a medical student under Dr. Benjamin Rush.

Not yet to be considered an essential ". . . without which no office is complete . . ." is the electron microscope. One such instrument for biological research can be had at the going price of twenty-eight thousand dollars!

Far be it from proctologists to lay claim to the oldest profession! Yet, the Code of Hammurabi, about 2100 B.C., decreed: "If a doctor . . . has cured the diseased bowel the patient shall give five shekels of silver to the doctor."

In case you're curious (we're not), Josiah Wilbarger reported that when he was scalped by Indians in 1833, the operation "sounded like distant thunder." This early-day sound effects man lived for eleven years following his experience.

Capsule Clinics

- Twelve fatal fulminating cases of influenza were observed within a period of six weeks. Mitral stenosis may have been a major contributing factor in three patients. The remaining 9 had previously been in good health. Major changes noted at necropsy were confined to the respiratory tract. The trachea showed severe inflammatory congestion. Few alveoli of the lungs contained air. There was widespread consolidation. Roberts, G. B. S. Lancet 2:944, 1957.

- Even the best medicine, under the best circumstances, is at best the lesser of two evils. The toxic and physiologic side effects of modern therapeutic agents are generally appreciated. Of increasing importance are reactions which do not fall into either of these groups. They are drug reactions which mimic or reproduce diseases or conditions which have long been recognized. The author calls attention to a few such conditions which have been brought to his attention. Rising, J. D., J. Kansas M. S. 58:653, 1957.

From Clinical Clippings, Francis Roberts Agency, Inc.

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Component Societies in Affiliation With the Missouri State Medical Association

County	District	President	Address	Secretary	Address
Andrew	1	V. R. Wilson	Rosendale	M. L. Holliday	Fillmore
Audrain	5	Leonard Davis	Mexico	Harold Lankford	Mexico
Barton-Dade	8	Thomas W. Carroll	Lamar	Herbert M. Arnold	Lamar
Benton	6	T. S. Reser	Cole Camp	James A. Logan	Warsaw
Boone	5	Hugh E. Stephenson	Columbia	John J. Modlin	Columbia
Buchanan	1	Allen I. Herman	St. Joseph	William B. Rost	St. Joseph
Butler-Ripley-Wayne	10	A. L. May	Poplar Bluff	Edward C. Cline	Poplar Bluff
Callaway	5	Thomas L. Johnson	Fulton	James E. Hill	Fulton
Camden	5	E. G. Claiborn	Camdenton		
Cape Girardeau	10	Hugh V. Ashley	Cape Girardeau	Gerald M. Hoxworth	Cape Girardeau
Carter-Shannon	9	H. D. Rollins	Winona		
Chariton-Macon-Monroe-Randolph	2	W. D. Chute	Moberly	Robert H. Young	Moberly
Clay	1	James E. McCormick	North Kansas City	Robert H. Dunham	North Kansas City
Clinton	1	W. B. Spaulding	Plattsburg	J. P. Mabrey	Plattsburg
Cole	5	Byron E. Watts	Jefferson City	E. R. Bohrer	Jefferson City
Cooper	5	William A. Abele	Boonville	Daikichi Hata	Boonville
Dallas-Hickory-Polk	8	Evelyn P. Griffin	Buffalo	George G. Robinson	Humansville
Dunklin	10	D. W. Croom	Malden	E. L. Spence	Kennett
Franklin-Gasconade-Warren	4	Frank G. Mays	Washington	William R. Richardson	Union
Grand River Medical Society (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Charles M. Grace	Chillicothe	Edgar A. Duffy	Trenton
Greene	8	Ronald F. Elkins	Springfield	G. Bruce Lemmon, Jr.	Springfield
Henry	6	Claude M. Thurber	Windsor	R. S. Hollingsworth	Clinton
Holt	1	F. E. Hogan	Mound City	D. C. Perry	Mound City
Howard	5	W. C. Allen	Glasgow	William A. Bloom	Fayette
Jackson	7	John H. Mayer, Jr.	Kansas City	Herbert H. Virden	Kansas City
Jasper	8	W. Russell Smith	Carthage	John W. Koehler	Joplin
Jefferson	4	Karl V. McKinstry	DeSoto	John F. Rutledge	Crystal City
Johnson	6	Charles M. Lederer	Warrensburg	Keith D. Jones	Warrensburg
Lafayette-Ray	6	J. S. Cope	Lexington	R. W. Riley	Lexington
Lewis-Clark-Scotland	2	J. R. Bridges	Kahoka	P. W. Jennings	Canton
Lincoln-St. Charles	4	E. J. Canty	St. Charles	Paul H. Rother	St. Charles
Marion-Ralls-Shelby	2	Sam T. Ellis	Hannibal	J. H. Walterscheid	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	James D. Butts	Rolla	M. K. Underwood	Rolla
Miller	5	W. L. Allee	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	10	Jack Mullen	Bonne Terre	Robert A. Huckstep	Farmington
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	Samuel J. Byland	Wellsville
Morgan	5	J. L. Washburn	Versailles	R. R. Lyle	Versailles
Nodaway-Atchison-Gentry-Worth	1	Robert Dunshee	Maryville	Charles D. Humberd	Barnard
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Spencer L. Freeman	Kirksville	G. R. Hudson	Kirksville
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	M. C. Bowman	Neosho	A. J. Graves	Mount Vernon
Pemiscot	10	Joseph H. Poff	Caruthersville	John K. Duckworth	Hayti
Perry	10	Stanley G. Legner	Perryville	A. E. McDermott	Perryville
Pettis	6	Carl Siegel	Sedalia	Robert Stewart	Sedalia
Pike	2	J. W. Middleton	Louisiana	Don E. Beckman	Clarksville
Platte	1	S. L. Durham	Dearborn	H. C. Thurman	Parkville
St. Louis City	3	A. W. Neilson	St. Louis	John P. Eberle	St. Louis
St. Louis	4	Emmett B. Drescher	St. Louis	Robert A. Mayer	St. Louis
Saline	6	Marvin E. Roehrs	Marshall	E. Lee McCorkle	Marshall
Semo County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Thomas C. McClure	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	Marvin L. Fowler	West Plains	A. C. Ames	Mountain Grove
Webster	8	C. R. Macdonnell	Marshfield	E. G. Beers	Seymour
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	B. O. Hartwell	Drexel	J. C. Moody	Harrisonville

SYNTHETIC BILIARY ABSTERGENT

ZANCHOL®

(brand of florantyrone)

Fills an Important Postcholecystectomy Need

The excellent results with Zanchol in patients whose gallbladders have been removed have been most pronounced in two phases of management:

1. Early—Zanchol in Postoperative Care. T-tube studies have demonstrated that Zanchol increases the volume and fluidity of bile, at the same time changing its color to a clear, brilliant green. The greatly improved abstergent cleansing action of the bile is noted in its ability to keep the T tubes clean[1] without rinsing in most cases.

2. Late—Zanchol in Postcholecystectomy Syndrome. By improving the physicochemical properties of bile and increasing its flow, Zanchol acts to eliminate biliary stasis and sharply reduce or eliminate biliary sediment. The drug may be employed in both prophylaxis and therapy of the postcholecystectomy syndrome.

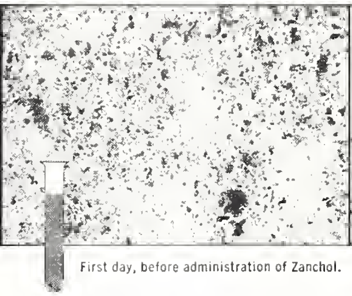
Medical Indication for Zanchol
This includes the treatment of patients with chronic cholecystitis for which surgery is not required or may be impossible for any reason.

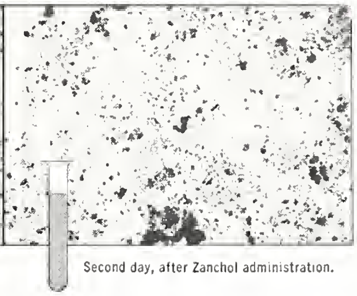
Dosage: one tablet three or four times daily. Tablets of 250 mg. each.

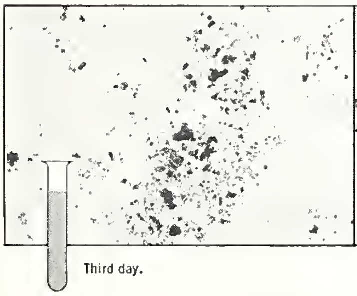
G. D. Searle & Co., Chicago 80, Illinois.

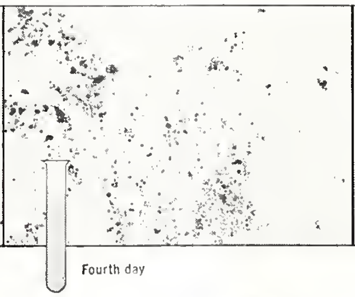
Research in the Service of Medicine.

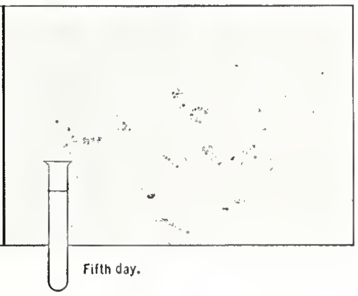
photomicrographs[1]
showing daily changes in sediment from centrifuged bile taken from T-tube drainage in a postcholecystectomized patient.


First day, before administration of Zanchol.


Second day, after Zanchol administration.


Third day.


Fourth day


Fifth day.

SEARLE

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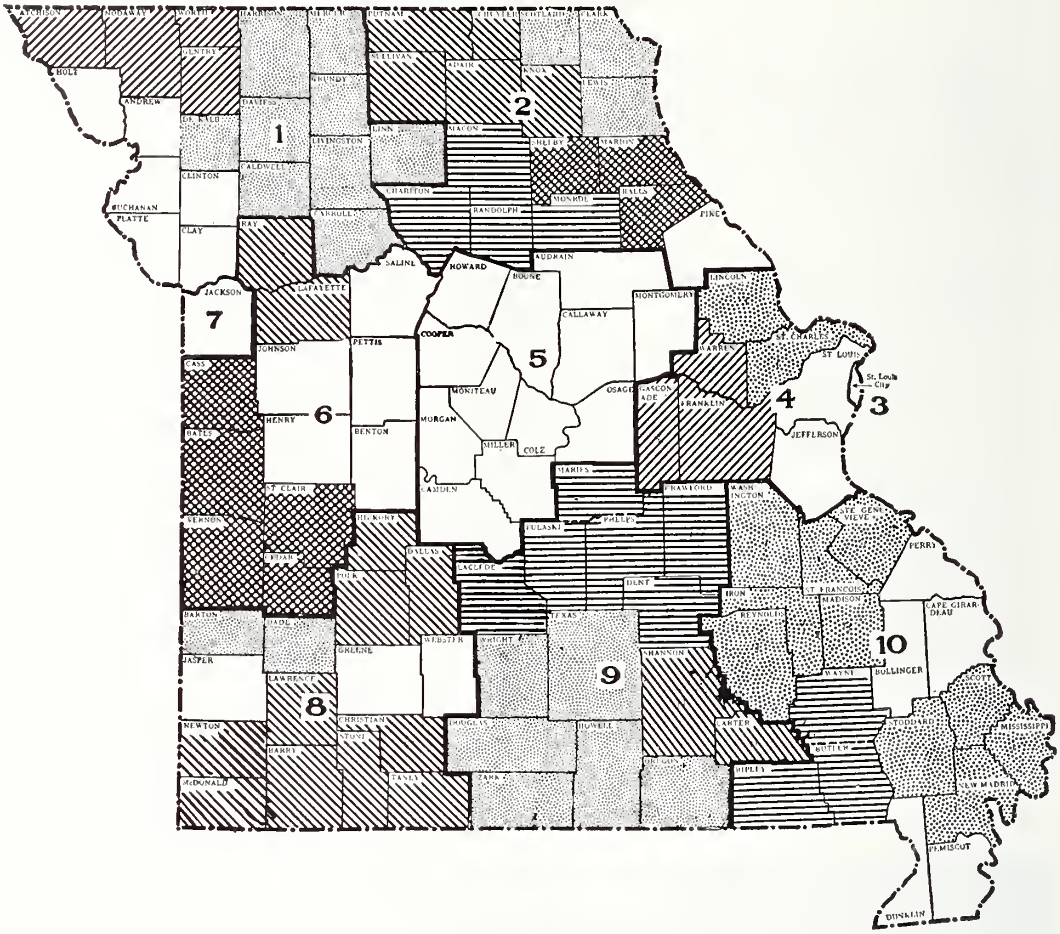
[1] McGowan, J. M.: Clinical Significance of Changes in Common Duct Bile Resulting from a New Synthetic Choleretic, Surg., Gynec. & Obst. *103:*163 (Aug.) 1956.

Councilor Districts and Counties in Each District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ATCHISON
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PUTNAM
SCHUYLER
SCOTLAND
CLARK
HOLT
GENTRY
SULLIVAN
ADAIR
KNOX
LEWIS
ANDREW
GRUNDY
DAVIESS
DE KALB
LINN
MACON
SHELBY
MARION
BUCHANAN
CLINTON
CALDWELL
LIVINGSTON
CHARITON
MONROE
RALLS
PLATTE
CLAY
RAY
CARROLL
RANDOLPH
PIKE
AUDRAIN
SALINE
HOWARD
BOONE
LINCOLN
JACKSON
LAFAYETTE
MONTGOMERY
CALLAWAY
ST. CHARLES
COOPER
JOHNSON
PETTIS
WARREN
ST. LOUIS
St. Louis City
CASS
MONITEAU
OSAGE
GASCONADE
FRANKLIN
HENRY
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HICKORY
PULASKI
PHELPS
PERRY
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ST. FRANCOIS
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DENT
IRON
MADISON
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REYNOLDS
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WEBSTER
WRIGHT
GREENE
JASPER
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WAYNE
BOLLINGER
LAWRENCE
CHRISTIAN
SCOTT
NEWTON
DOUGLAS
HOWELL
CARTER
STODDARD
MISSISSIPPI
STONE
BARRY
BUTLER
OREGON
RIPLEY
OZARK
TANEY
McDONALD
NEW MADRID
PEMISCOT
DUNKLIN

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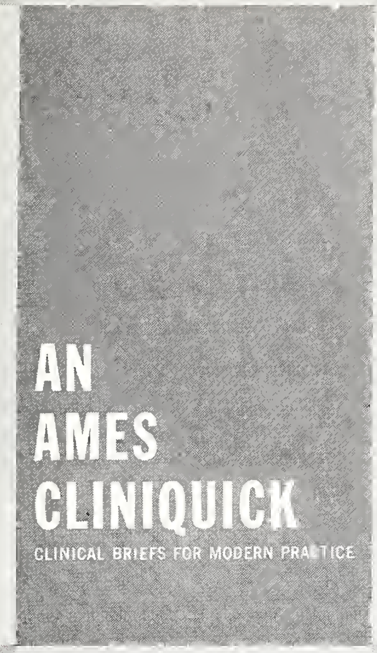
Seventh District: Councilor, Ralph Perry, Kansas City. County: Jackson.

Eighth District: Councilor, W. W. Tillman, Springfield. Counties: Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney, Webster.

Ninth District: Councilor, J. H. Summers, Lebanon. Counties: Carter, Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas, Wright.

Tenth District: Councilor, Ben M. Bull, Ironton. Counties: *Bollinger,* Butler, Cape Girardeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington, Wayne.

Shaded areas show hyphenated component societies. Counties listed in italics are unorganized.



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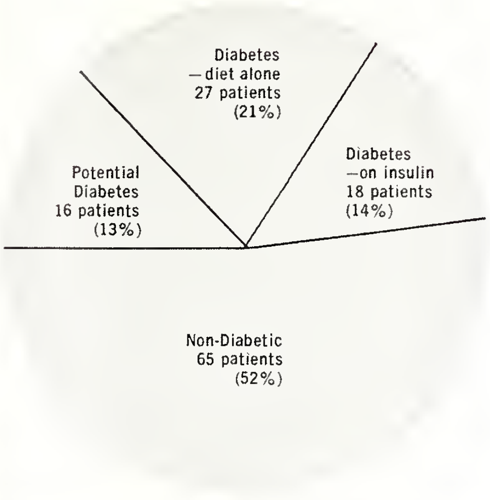

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considered unimportant?

Never. A patient showing even a mild transient glycosuria should be observed for years as a diabetic suspect.*

Ultimate diagnosis on 126 patients with a previous transient mild glycosuria. Twenty diabetics were discovered 5-10 years after a recorded glycosuria—10 diabetics after more than 10 years.*

*Murphy, R.: Connecticut M. J. *21*:306, 1957.

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The Sixty-first Annual Meeting of the Missouri State Medical Association will convene at Jefferson City, May 6, 7 and 8. The new capitol will furnish the place of meeting and a large number of members will have their first view of this beautiful structure. Hotel headquarters will be at the New Central Hotel.

Dr. G. W. Whiteley, Councilor of the Third District, reports the organization of Worth County Medical Society, March 3, 1918, with five members as follows: Drs. J. D. Dove, Allendale; C. F. Johnson, Sheridan; W. E. McKinley, Grant City; J. K. Phipps, Grant City, and P. J. Ross, Grant City. Officers for 1918 were elected as follows: President, J. K. Phipps; vice-president, C. F. Johnson; secretary-treasurer, P. J. Ross; delegate, W. E. McKinley; alternate, J. K. Dove.

Capt. Fayette C. Ewing, St. Louis, Medical Reserve Corps, is in charge of the ear, nose and throat department of the Base Hospital at Camp Beauregard, La.

Capt. Robert E. Schlueter, President of our Association, has been transferred from the training camp at Fort Oglethorpe to the Base Hospital at Camp Hancock, Augusta, Georgia.

Have you sent that binocular, telescope or spyglass to the Navy? The Navy needs 100,000 of these "eyes" to help fight the enemy on the seas. As explained in a letter from the Assistant Secretary of the Navy, published last month, it is impossible to obtain these articles from abroad and our own facilities for manufacturing them are limited. Send yours to the Honorable Franklin D. Roosevelt, Assistant Secretary of the Navy, Naval Observatory, Washington, D. C.

Dr. Wm. R. Summers, until recently assistant physician at State Hospital No. 3, Nevada, has purchased the Johnson Sanitarium at Springfield which was established by the late Dr. S. A. Johnson for the treatment of mental and nervous diseases.

The Clay County Medical Society held its second meeting for 1918 at the Major Hotel in Liberty, February 25. A good attendance as usual, with Dr. C. C. Conover of Kansas City and Dr. W. A. Miller of Eagletown, Okla., visiting. "I am sorry that some of our best men do not find time to come to our meetings. Attendance is absolutely essential to maintaining a good county medical society. I would not care to belong to a lukewarm, mollycoddle, medicated outfit. Come next time, doctor, and don't forget it's time to pay dues, if you care to have our Society on the Roll of Honor," J. J. Gaines, Secretary.

TWENTY-FIVE YEARS AGO

The Seventy-sixth Annual Meeting of the Association will convene in Kansas City, May 1 to 4. Headquarters will be in the President Hotel and all sessions will be held in the Congress Room on the top floor of this hotel. Eminent men who have contributed much to the advancement of medical science in their respective fields will be guests of the Association. They are Dr. Charles A. Elliott, Chicago, professor of medicine in Northwestern University Medical School; Dr. Arnold S. Jackson, Madison, Wisconsin; Dr. Peter C. Kronfeld, Chicago, associate professor of ophthalmology in the Graduate School of Medicine of the Division of the Biological Sciences, University of Chicago, and Dr. J. Gordon Wilson, Chicago, professor of otology and laryngology in Northwestern University Medical School.

The annual Trudeau Lecture will be given this year by Dr. Allen Krause, Tucson, Arizona, editor of the *American Review of Tuberculosis,* on April 25. The Trudeau Lecture is sponsored by the St. Louis Trudeau Club.

Dr. William G. Patton, St. Louis, assumed the duties of superintendent of the St. Louis County Hospital March 2. He was appointed by the St. Louis County Court and succeeds Mrs. George Brand who was appointed after the death of Dr. Eugene A. Scharff.

Construction of a convalescent home for patients of the Missouri State Service for Crippled Children, Columbia, will begin soon at Marshall. The home is scheduled to be completed in the fall and will house about forty children. Funds for the home were provided in the will of the late Mrs. Georgia Brown Blosser of Marshall.

St. Mary's Infirmary, St. Louis, from which patients were transferred to the Firmin Desloge Hospital recently, reopened as a hospital for Negroes, March 19. Fourteen Negro physicians were appointed to the consulting staff and forty-seven to the visiting staff. The administrative control of the institution is vested in an executive council, the members of which are: Rev. Alphonse M. Schwitalla, S.J., dean of the St. Louis University School of Medicine; Rev. Mother Concordia, Mother General of the Sisters of St. Mary, and Sister

(Continued on page 336)

WHEN YOU TREAT INFECTIONS IN PATIENTS SUCH AS THESE

- debilitated
- elderly
- diabetics
- infants, especially prematures
- those on corticoids
- those who developed moniliasis on previous broad-spectrum therapy
- those on prolonged and/or high antibiotic dosage
- women—especially if pregnant or diabetic

the best broad-spectrum antibiotic to use is

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Sumycin plus Mycostatin

for practical purposes, Mysteclin-V is sodium-free

for "built-in" safety, Mysteclin-V combines:

1. Tetracycline phosphate complex (Sumycin) for superior initial tetracycline blood levels, assuring fast transport of adequate tetracycline to the infection site.

2. Mycostatin—the first safe antifungal antibiotic—for its specific antimonilial activity. Mycostatin protects many patients (see above) who are particularly prone to monilial complications when on broad-spectrum therapy.

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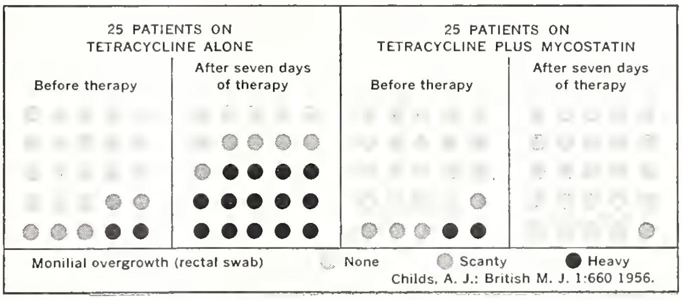

Childs, A. J.: British M. J. 1:660 1956.

Capsules (250 mg./250,000 u.), bottles of 16 and 100. *Half-Strength Capsules* (125 mg./125,000 u.), bottles of 16 and 100. *Suspension* (125 mg./125,000 u.), 2 oz. bottles. *Pediatric Drops* (100 mg./100,000 u.), 10 cc. dropper bottles.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

MSMS 100th Annual Session

A look at the scientific program of the 100th annual session of the Missouri State Medical Association to be presented at the Sheraton-Jefferson Hotel in St. Louis, April 14, 15, 16, should cause a lot of general practitioners over the state to wind up in St. Louis on those dates. This program is right down our alley and offers us some real meat. Rumors are that the sessions of the house of delegates may be of special interest to all this year.

After you have digested this inviting scientific menu on April 14, 15 and 16 you will have just the right amount of time to prepare for a return trip to St. Louis in October. The occasion this time will be the Tenth Annual Scientific Assembly of the Missouri Academy of General Practice. This outstanding meeting will be held at the Chase Hotel in the new exhibit hall on Saturday and Sunday, October 18 and 19. Four symposia will be offered during the two days as follows: October 18: Office Procedures, 10:15 a.m. to noon; Gynecology, 1:30 p.m. to 5:10; October 19: Medicine, 9:00 a.m. to noon; Pediatrics, 1:30 p.m. to 4:30 p.m. The papers given on each symposium will be limited to 20 minutes with a 30 minute panel discussion terminating each symposium. Both in-state and out-of-state speakers will spice the Assembly sessions.

The Board approved the program for the Assembly at a meeting in Jefferson City on January 26.

The Academy President's Installation Banquet will be held in the Chase's famed Starlight Roof on Saturday Night, October 18. In addition to the banquet there will be other special arrangements made for the pleasure of the doctors' wives during the week-end festivities.

This is the first time the Missouri Academy has held its annual meeting in St. Louis. We are looking forward this fall to the largest and best annual assembly to date. The St. Louis Academy of General Practice is cooperating to the fullest to make this a signal occasion.

Missouri Medicine in Review

(Continued from page 334)

M. Petra, superintendent of St. Mary's Infirmary; Dr. Charles H. Neilson and Dr. William T. Coughlin, representing the St. Louis University School of Medicine, and Drs. W. R. Arthur and W. B. Christian, representing the hospital staff.

TEN YEARS AGO

O. B. Barger, M.D., Harrisonville, has been appointed coroner of Cass County. David V. LeMone, M.D., Columbia, has been elected chief of staff of the Boone County Hospital as successor to the late Dudley A. Robnett, M.D. A. R. McComas, M.D., Sturgeon, vice chief of staff, requested the election rather than assume the title himself. C. Malone Stroud, M.D., St. Louis, was elected president of the St. Louis Society for Crippled Children on February 13, to succeed J. Archer O'Reilly, M.D., who died on December 5. James W. Allee, M.D., Columbia, has been appointed college physician and surgeon at Christian College, Columbia.

A. N. Arneson, M.D., St. Louis, was elected president of the St. Louis Gynecological Society at a meeting on February 12. Other officers elected were Matthew Weis, M.D., vice president; Paul F. Fletcher, M.D., secretary; Carl Wegner, M.D., treasurer; E. Lee Dorsett, M.D., editor.

The male frog, in a series of tests run by Wiltberger and Miller (*Science* **107**:198, February 1948), has been found to have a high diagnostic value as a test animal for early pregnancy. The test as reported has the advantage of speed and accuracy in the first trimester as well as economy and simplicity.

The *Journal of the American Medical Association* on February 28 carried the following editorial. "In a plebiscite conducted by the British Medical Association 86 per cent of British physicians voted against working for the universal free medical service scheme that has been scheduled to take effect on July 5. Of course the scheme is not really free, since every taxpayer in England contributes toward its support.

there is one tranquilizer clearly indicated in peptic ulcer...

does not increase...

ATARAX®

(BRAND OF HYDROXYZINE)

actually lowers* gastric secretion

*Tests in a series of 25 patients show that there is "a definite and distinct lowering [of both volume of secretions and of free hydrochloric acid] in the majority of patients. . . . No patients had shown any increase in gastric secretions following administration of the drug."[1]

Now you have 4 advantages when you calm ulcer patients with ATARAX:

1. ATARAX suppresses gastric secretions; others commonly increase acidity.
2. ATARAX is "the safest of the mild tranquilizers."[2] (No parkinsonian effect or blood dyscrasias ever reported.)
3. It is effective in 9 of every 10 tense and anxious patients.
4. Five dosage forms give you maximum flexibility.

supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

references: 1. Strub, I. H.: Personal communication. 2. Ayd, F. J., Jr.: presented at Ohio Assembly of General Practice, 7th Annual Scientific Assembly, Columbus, September 18-19, 1957.

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Missouri Division of Health

H. M. Hardwicke, M.D., *Acting Director*

Personnel of the Division of Health have come to realize that the only justification for our continued existence is the quality and quantity of service rendered people of Missouri by this organization.

In general, it may be said that the administration problems of the Division of Health are related to the significant health needs of the citizens of Missouri. It is realized that the health needs of Missouri are changing as our civilization changes.

Consequently, the Division of Health of Missouri has undergone a general reorganization in keeping with improved administrative technics and efficiency into the general activities of the Division of Health.

It is recognized that public health in Missouri, for a variety of reasons, has tended to lag behind the existing demands for public health service. These existing demands are now being evaluated and identified.

We feel it important to point out that public health per se is an extension of the services rendered by practicing physicians. The basic health services in any community must continue to be dependent upon the activities of that community's physicians. However, there exist areas of need within education, clinic organization, sanitation, nutrition and the care of the chronically ill which cannot be met immediately. Plans are being correlated to meet these existing critical needs as funds and personnel become available.

It is desirable to develop, with appropriate committees of the Missouri State Medical Association, technics for the early detection of chronic illness and the proper referral of such illness to practicing physicians.

We wish to explore the possibility of developing, in conjunction with practitioners of medicine, homemaker services for chronically ill individuals.

Plans are also being formulated to carry on a continuing program of education as a supplement to the excellent work done by busy practicing physicians. This education shall be directed constructively toward the patients of these physicians and under their direction.

Vital Statistics

"The force of mortality, pressing upon a people, may in some degree be measured and weighed by accurate enumeration of the numbers and ages of the living; by the location, circumstances and causes of death, and by intelligent abstract of these facts."

It is elementary to observe in current medical literature that most articles published in the journals must draw their conclusions from experiments that have to be interpreted on a statistical basis.

Statistical technics are of importance in the analysis of clinical and laboratory data. They also have an essential place in the field of public health. Vital data are the beacons of those who guide the public health activities of the states and the nation. Without a continuous and adequate compilation and interpretation of vital facts, all public health work would be carried out blindly and ineffectively.

Vital statistics have been called "the bookkeeping of humanity." As in all bookkeeping, the value of the data is minimal unless the facts that are collected are accurate and complete. The responsibility for accuracy and completeness is the direct function and duty of the family physician. It is one of the important community responsibilities which the physician assumes when he enters the practice of medicine. He must be the primary source of accurate and complete recording of the vital data in his community.

A lack of recognition on the part of the Division of Health as to the inveterate nature of our system of reporting communicable diseases has led to the development of a complete renovation of these technics. In order to increase the validity of morbidity reporting by the Division of Health, all practicing physicians are urged to cooperate so that morbidity statistics may have greater value for all persons and agencies concerned with them.

New technics will feature easier reporting for physicians, an expanded assemblage of information, and possibly a wider distribution of the printed weekly C.D. report.

Close association will be maintained between the Division of Health and the Missouri State Medical Association in order that clearer understanding of the part which is to be played by public health in Missouri be promoted by both parties.

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A versatile, well-balanced formula capable of modifying the course of common upper respiratory infections . . . particularly valuable during respiratory epidemics; when bacterial complications are likely; when patient's history is positive for recurrent otitis, pulmonary, nephritic, or rheumatic involvement.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

Available on prescription only.

TABLETS *(sugar coated) Each Tablet contains:*

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
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SYRUP *(lemon-lime flavored) Each teaspoonful (5 cc.) contains:*

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 oz.

rapidly relieves the .... debilitating symptoms

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WASHINGTON

Like it or not, Washington is the place most segments of our economy are looking to and appealing to for economic relief in our troublesome recession. Just what the long-term effects will be on the medical profession are impossible to predict.

Issues like the Forand bill and Jenkins-Keogh now probably will take on a slightly different hue to most Congressmen.

If the urgent call to "prime the pump" is heeded by Congress and the Eisenhower administration, what methods will be used?

Along with the possible public works measures, there could be a general cut in Federal income tax to free more money for consumers' goods. There, of course, will be a rash of bills in Congress to make it easier to receive social security and welfare checks and to extend unemployment compensation payments.

Whether union leaders will worry as much about the Forand bill as they see the unemployment rolls grow, remains to be seen. After all, most of the immediate benefactors of the free hospital-surgical care called for in the Forand bill would be people already on social security rolls—and not active union members.

Not all areas, however, look quite so bleak. A recent survey by the Associated Press showed optimism in farming areas and in the construction field. Farmers are elated as the long drought appears to be about broken. Builders are happy to see the freeze on building money credit relaxed.

Federal aid to construction in the nursing home and aged field was recommended following a national conference of leaders in the two fields. About 150 leaders, representing virtually every organization involved in the problems, attended the Washington meeting sponsored by the U. S. Public Health Service.

One of the conference sections during the 4-day affair called for federal legislation to stimulate local financing to build and renovate homes. The resolution did not specify whether the United States should offer matching grants, mortgage guarantees or both. (Missouri's Legislature last year gave its county courts power to authorize issuance of bonds for construction of non-profit nursing homes. Operators of such homes ideally would be a church, or civic or charitable group.)

Another of the 103 recommendations of the USPHS conference stressed that every elderly person in a nursing home should have a private physician, and that every home operator should have a physician to advise him and to handle emergency calls.

Other recommendations included written orders for drugs and treatment, and adequate medical records.

It was estimated that 100,000 beds in substandard homes should be replaced, at an estimated cost of 360 million dollars. There was no firm estimate of the number of new beds needed.

At the opening session, Surgeon General Burney said the lack of enough high-quality nursing homes "keeps tens of thousands of older patients in general hospitals for prolonged periods beyond the time when they need, or can even benefit from, 'full dress' hospital services."

A recent Medicare ruling spells out that physicians may be reimbursed for drugs given to maternity patients. There had been some confusion on that before. The authority, contained in ODMC letter No. 9-58, directs physicians to itemize the drugs and their cost on the claim form (DA Form 1863), or on an attachment thereto. Type, quantity, and cost must all be shown.

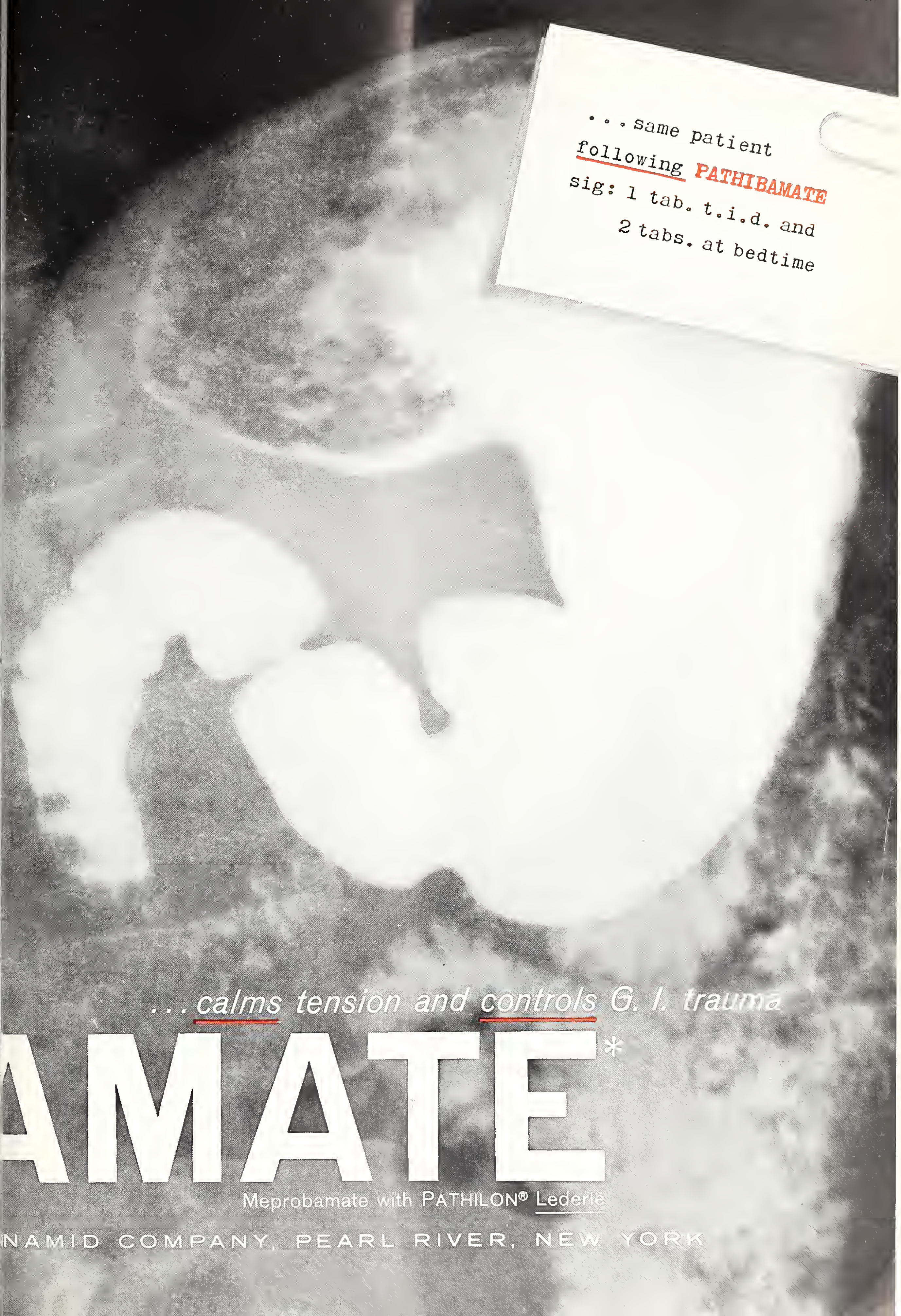
Another Medicare letter, ODMC No. 10-58, states that many servicemen's dependents are applying for Medicare hospital and medical benefits without their official identification cards (DD Form 1173).

The letter suggests that the physician or hospital should call for one of the following in those cases:

1. Statement of a local military commander that the patient is an eligible dependent.
2. Other official military documents and/or identification cards, showing the eligibility for Medicare services.
3. Statement by physician or hospital authority that he has personal knowledge of the patient's dependency status and eligibility for Medicare.
4. Civilian type identification, such as Social Security card, driver's license and so on, identifying the party certifying to eligibility in Section III of the claim form as being the individual so stated.

The weekly newsletter *Washington Report on the Medical Sciences* reports that the United Mine Workers Association's tri-state hospital network apparently is the target of a bill introduced in the Kentucky Legislature. The measure would guarantee freedom of choice of physician to members of medical service plans, such as the UMWA has.

The Kentucky State Medical Association has charged the mine fund beneficiaries with forbidding miners to use private hospitals of their own choice. This is just one of several charges made by the KSMA in a controversy touched off by the efforts of a UMWA's physician to join a Kentucky county medical society.



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Woman's Auxiliary

Mrs. Armand D. (*Ruth Anne*) Fries, *President*

When I assumed this office just a year ago and looked ahead, a year seemed quite a span of time; yet looking back, it has passed swiftly. This article is the twelfth and last one which I will write for publication in Missouri Medicine, as this month my year as President of the Woman's Auxiliary to the Missouri State Medical Association comes to its close.

It has been one of my pleasant assignments each month to tell Doctors more about our organization; our aims, our hopes and our accomplishments. We are grateful for the valued space, which has been alloted us in your fine publication, as it implies your favorable recognition of the value of the Woman's Auxiliary.

March 1, the official call to the thirty-third annual meeting of the Woman's Auxiliary to the Missouri State Medical Association was sent to all Executive Board Members. The meeting will be held April 13, 14, 15, at the Sheraton-Jefferson Hotel, St. Louis, with the Woman's Auxiliary to the St. Louis Medical Society and the Woman's Auxiliary to the St. Louis County Medical Society serving as joint hostesses. Mrs. Lee T. Ford (St. Louis) and Mrs. J. Martyn Schattyn (St. Louis County) are cochairmen of convention arrangements and their convention committee is comprised of members from both organizations. Their long and thoughtful planning forecasts a fine and enjoyable meeting.

At 6:30 p.m. Sunday, April 13, in the "Voo-Doo" bar, there will be a social hour, followed at 7:30 p.m. by a Buffet Supper and Calypso Cruise, in the Boulevard Room. All doctors, their wives and friends are urged to join this exciting "Noche De Fiesta" in a colorful Caribbean setting.

Monday's "Fanfare" Luncheon, in the Gold Room at 12:30 p.m., will honor Mrs. Paul C. Craig, A.M.A. Auxiliary president, and our medical councilors, Walter S. Sewell, M.D., W. F. Francka, M.D., and Robert Mueller, M.D. Mrs. Craig will speak on her year's theme, "Health Is a Joint Endeavor." To round-off the afternoon, at 3:00 p.m., will be a "Fun-Fair" Bridge, with lots of fun and nonsense, and lots of prizes. Since downtown stores are open on Monday until 8:30 p.m., and in outlying areas until 9:30 p.m., there is no planned entertainment. Visitors may shop at this time.

For Tuesday's luncheon, members and guests will be taken by bus to Le Chateau, 10405 Clayton Rd., St. Louis County, where our installation luncheon will be held at 1:00 p.m. in the Frontenac Room, honoring Past State Presidents, new officers and Mrs. Walker L. Curtis, College Park, Georgia, President, Southern Medical Auxiliary, who will bring greetings from her organization. Following luncheon will be a "Fashion Frolic" with lovely costumes from the "French Shop," modeled by Auxiliary members; "Do-It-Yourself" Originals by members of the M.D.D. Golf Association. Musical Background.

At 7:30 p.m., the Annual Banquet of the Missouri State Medical Association will be held in the Boulevard Room, with Dr. Gunnar Gunderson, La Crosse, Wis., President-elect of A.M.A., speaking on "World Medicine and Its Influence for Peace."

The Preconvention Executive Board Meeting is scheduled for 2:30 p.m., Sunday, April 13.

Executive board members, county auxiliary presidents-elect, and county auxiliary delegates are urged to attend general business sessions at 9:00 a.m., Monday and Tuesday.

Wives of doctors who are attending the meetings of the Missouri State Medical Association, even though they are not members of the Auxiliary, are cordially invited to attend business sessions and social functions.

As I write this article, I realize that this is the last time the honor of being a contributor will be accorded me; for next month a new picture will be on our Auxiliary page and a new President will tell our Auxiliary story. My personal thanks for the friendship we have shared this year, and I ponder hopefully that I have made the best possible use of your generosity in making space available to us. Another year has flown, but in passing, if some of the seed I have attempted to sow carefully, bears fruit, I shall be most grateful.

To my beloved successor, Mrs. Bauman, every good wish for a wonderful year, with success crowning all she undertakes to do; and as I join the Past Presidents of our Auxiliary, who have laid the strong foundation upon which I was privileged to build this year, I am happy to have served and proud to now take my place among them.

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HYPERTENSION

1 **INITIATE 'DIURIL' THERAPY**
'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 **ADJUST DOSAGE OF OTHER AGENTS**
The dosage of other antihypertensive medication (reserpine, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

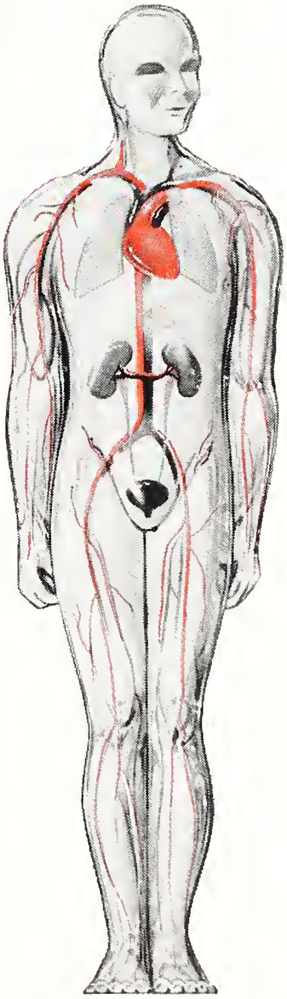
3 **ADJUST DOSAGE OF ALL MEDICATION**
The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

BENEFITS:

- improves and simplifies the management of hypertension
- markedly enhances the effects of antihypertensive agents
- reduces dosage requirements for other antihypertensive agents—often below the level of distressing side effects
- smooths out blood pressure fluctuations

INDICATIONS: management of hypertension

Smooth, more trouble-free management of hypertension with 'DIURIL'



Missouri State Medical Secretaries and Assistants Society

MARGARET SCOTT, *President*

During the last year—from May 1, 1957, through April of 1958—the ambitions and scope of activities of the Missouri State Medical Secretaries and Assistants Society have been broadened and an effort has been made to bring educational programs not only to the members of the Society, but to the women employed by all of the doctors of this state.

In the last years the Society has tried to bring its message to medical secretaries and assistants and to their employers through its *Bulletin,* which is published quarterly, and through word-of-mouth contact. Membership has grown steadily in the seven years of the life of this society. Some of the local or county societies have had educational programs in their regular meetings and in special Work Shop sessions. These have been of inestimable value to those who have attended. The state society in its regular meetings has been privileged to hear discussions of interest by many well qualified people and these, too, have been of untold value.

However, it was not until recently that the society launched an active educational effort of its own. In November of 1957 there was a one day educational program in Springfield, with an attendance of approximately 90 women employed in the field of medical assistants. The interest of the physicians in that area was shown in their active participation in the program and in their willingness to sponsor their assistants' attendance. In December the society published an Educational Newsletter which covered the experience of members in the matter of collections. On February 27, 1958, the Society sponsored another one day educational program in Kansas City which was attended by more than 100 women from the central and western parts of Missouri and also by some from Kansas.

The subjects discussed at both of these educational meetings included matters of collections, the responsibility and liability of both the assistant and the physician from an ethical and legal point of view, public relations, qualifications for position of medical secretary and assistant, Blue Cross-Blue Shield and insurance matters as they affect the doctor's office, telephone technics and newer ideas in letter writing.

These programs have not been made available to all women who are employed by the physicians of this state, yet an opening wedge has been made. It is hoped that there is a sufficient amount of interest on the part of the doctors and their assistants to warrant additional educational work and that greater numbers of those women employed in the offices of doctors can attend similar meetings.

None of this work would be possible without the cooperation of the physicians and their city, county and state medical organizations. The generosity of members of other professional groups and of business men and women has been of untold inspiration and help.

The annual meeting of this Society will be held in Kansas City, April 26 and 27, 1958. It is the hope of the society that many secretaries and assistants will take advantage of this opportunity to meet with and know those who have helped this organization to grow to its present stature. It is also the hope of the society that it may continue to grow and to be ever better able to serve the physicians of this state.

BISHOP WAS WRONG

Here is another good answer to Columnist Jim Bishop's unwarranted attack on physicians carried February 4 in the *St. Louis Post-Dispatch.* The paper carried this answer from Louis T. Byars, M.D., St. Louis, on its editorial page February 10:

"Jim Bishop's column, 'Doctors' Halos Worn Too Tight?' requires rebuttal.

"He is entitled to his opinion but I question the propriety of his using 50 square inches of newspaper space to fabricate and present an ugly picture to thousands of readers unless he supports his position by logic, facts and evidence which bears some relation to the subject; this he does not do.

"He charges most of that which the doctor tells the patient is a 'mumbo-jumbo of guessing.' Medicine is not an exact science and can never be but this is not the doctor's fault. If fault there be, it is in the fashioning of the human race.

"I do not like his use of the word 'guessing' but at least the 'guesses' have been so accurate that infants are no longer decimated by diarrhea during their second summer of life; there are few deaths from pneumonia, typhoid and small pox; whooping cough and many other diseases are nearly non-existent; deaths from appendicitis are rare; congential deformities are corrected as never before and hundreds of successful operations are done within the chest and cranial cavities every week.

"As a proponent of thorough explanation to the patient, I am constantly discouraged by my inability to reduce complicated anatomy, physiology and mechanics to simple enough terms for many patients to grasp. It is also difficult to explain and understand the atom, and the intricacies of Hi-Fi.

"Bishop states that it is 'in the field of love that the doctors do their most merciless operating' and describes 'Artie's' wife's operation. I deduce that Artie's wife had a radical amputation of the breast for cancer and was in the hospital for one week at great expense.

"Bishop doesn't say that this operation is done with one-half of 1 per cent mortality as opposed to 5 per cent a few years ago; that the hospitalization is about half as long as formerly; that the entire recovery period is shortened; that the resulting disability is reduced or that this operation produces from 75 to 35 per cent cure rate of cancer, depending on its stage, and that doctors deserve some credit for these advances.

"Bishop does detail the hospital charges and intimates that this money finds its way into the doctors' pockets. Not so. Doctors have wives, children, parents and loved ones of their own who have colds and trag-

(Continued on page 435)

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 April, 1958 Number 4

Human Placental Anomalies

Etiology, Evolution and Historical Background

RICHARD TORPIN, M.D., *Augusta, Ga.*

St. Louis has been the home of several noted students of the placenta. Classical papers have been presented here. In 1924 McNalley[1] wrote one of the best in the literature on the subject of placental infarcts and had previously written one with Dieckmann.[2] In 1934 and 1940 Hobbs[3,4] sponsored two papers on placenta circumvallata showing for the first time in the English language literature the relationship of this interesting placental anomaly to its clinical results. This work, well documented, conclusive and since confirmed by several other studies[5,6] was rather in contradiction to the conclusions of Williams[7] in his study of 30 specimens at term in 1927. Hobbs' work came as a proof of the clinical conclusions of many early European, mainly German students of the subject, Kustner[8] 1884, Schatz[9] 1890, Schwab[10] 1895 citing Fabri, Taruffi. Roncoglia, Auvard, Hansen and Veit; Liepmann[11] 1906, E'Ibarguengoitia[12] 1909, Meyer[13] 1909 and Paul Riehl[14] 1924. The latter wrote a considerable dissertation upon the bleeding aspects of circumvallata and marginata. All of them remarked upon the vaginal bleeding tendencies of patients with circumvallate placentas. However, the dominate position of Williams in American obstetrics was such that his ideas were accepted by almost all American students of the subject. This was questioned as early as 1934 by Otto Schwarz[15] who in discussing a paper on circumvallata by Goodall stated "Williams, in a study of 30 cases of placenta circumvallata going over his clinical histories, concluded that this abnormality was practically without clinical significance.

"Dr. Hobbs of my service, with a few cases fresh in mind where there were severe clinical complications, began an investigation of our material. He pointed out that in the cases studied by Williams, the patients were near term. Hobbs divided his cases into two groups, those in which the fetuses were stillborn or died soon after birth, and those in which the babies were born alive.

"In the first group the circumvallata was complete in 25, and partial in 9; in the second group it was complete in 26 and partial in 19. In the first group there were 26 stillbirths with eight other deaths where the babies had lived but a few hours. The average weight of each child was 1,000 gm. In the second group, there were 45 living children all weighing over 2,500 gm. This would seem to indicate that if the lesion developed early in the pregnancy, if it did not cause definite damage to the fetus by the time of viability, the condition is of little clinical significance, but that early in pregnancy a certain definite percentage of fetuses are lost due to the presence of this lesion."

While there is a growing appreciation of the importance of these placental anomalies, throughout the world there is still an over-all apathy. This will not be cleared up until the true etiology is known. Since nature is always quite simple and direct in her methods, being obscure only in the degree to which these methods are not understood, the true appreciation of all placental anomalies will not be had until their interrelation and their connected etiology is logically determined. Undoubtedly all types have some simple mutual relationship. Williams assumed that the Germans had solved the problem and he accepted one of the main ideas that they had produced. This concept was essentially that placenta circumvallata arose from a primary limitation of the chorion frondosum. This situation necessitated a further burrowing of the ovum to produce the ring infarct, in spite of the fact that this violates the universal rules that once a villus becomes necrotic it cannot come to life again or that any villus once attached cannot readily be pulled up and transplanted. It was originated early by Schatz according to Krukenberg,[16] 1886. This concept received the powerful

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Presented at a meeting of the St. Louis Gynecological Society, December 12, 1957.

It is logical and reasonable to expect that rarely an egg sinks still deeper into the endometrium so that more than one half up to three fourths of the 80 chorionic buds comes in contact with maternal vascularized decidual cells. These then succeed in producing placental tissue which extends from one half up to three fourths or more of the early sac, filling the uterine cavity. Many abortion sacs appear to have come from such a condition. In this situation, how is nature going to proceed? The only logical course seems to be for the enlarging contents of the expanding amniotic cavity to balloon out the distensible membranes as a child does with bubble gum and for the amniotic contents to herniate out (fig. 5), pulling down and pushing back a marginal placental ring, as is apparently evident as to what happens in placenta circumvallata. Many abortion sacs have the central ring and appear to have been originally of this type (fig. 6). The extensive decidual tearing with the attendant hemorrhage readily explains why many abort. Rarely one goes to term, as is the case in about 1 per cent of all term pregnancies, but from my studies I estimate that four have been aborted for each one that goes to term. This condition then is conducive of early termination of pregnancy due to uncontrolled decidual hemorrhage while the more frequent but lesser pathologic marginata more often goes to term or at least has trouble only later in pregnancy. Once in possibly a couple of thousand pregnancies the egg seems to sink still deeper into the endometrium and all of the villi succeed in obtaining root in vascularized decidua so that a total circumferential placenta results—placenta membranacea. Most of these rare pregnancies quite promptly and inevitably abort in a fashion similar to the hemorrhage of an ectopic pregnancy. One should realize that this discussion has nothing to do with placenta accreta. The deepest of the implantations (membranacea) probably would be near the surface and still in the upper part of the decidua compacta. If one can imagine the total endometrium at time of implantation to be a band 10 feet wide, the deepest implantation in this series would possibly not be more than 18 inches.

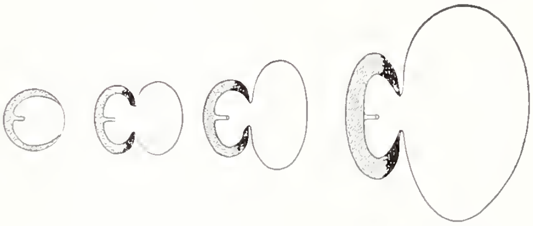

Fig. 5. Schematic representation of reduction of the extremely excessive original placental area in placenta circumvallata (fig. 2, number 4). Represented is chorion only. All external surfaces of the chorion are covered by decidua and of course the chorion is lined by amnion which is essentially the epidermis of the fetus extending out over the umbilical cord and lining the cavity in which he exists. Necrosis of the detached villi shown in black.

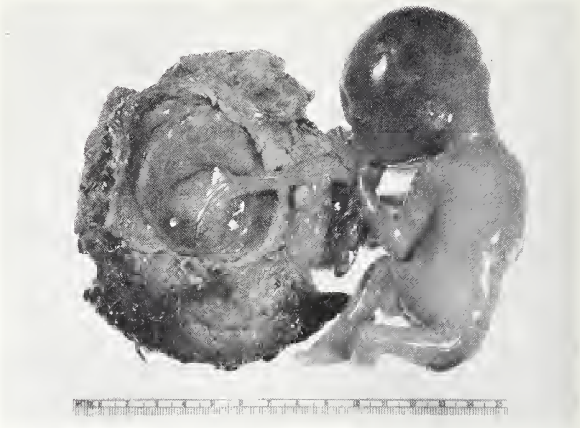

Fig. 6. Appearance of many abortion placentas; fairly typical of circumvallata.

One may question the possibility of ovular implantation—depth variation. However, the accepted fact of double discoid placentas in the human proves beyond doubt variation from normal to superficial. In these rare cases there is attachment but no decidua capsularis is formed. It is reasonable to expect variation in both directions, from the normal toward depth as well as toward superficiality. Granted that there is a variation of this type the results outlined merely fulfill all the physical laws involved in the relationship of the expanding uterine wall and its complicated contents. Furthermore, the hypothesis explains the varying degree of the anomaly in each type and also shows that the extremes of one type shade off into its neighbor.

By the very nature of the bleeding tendencies of these deeper implanted varieties they become the true basis of the etiology of spontaneous abortion and premature separation of the placenta. Spontaneous abortion in general then may be classified as an intrauterine ectopic pregnancy. Of course this does not include specific causes of primary fetal death such as cord entanglements, severe infections in the mother, rupture of the fetal membranes.

If so, why is there a variation in the depth of implantation? In my opinion this lies within the nature of the decidua. By methods up to the present one cannot differentiate between a normal endometrium which is able to repeatedly produce a living full term infant and one which habitually aborts. If the profession will accept the possibility of the concepts presented in this paper it will by exacting studies of the endometrium be able to find the differences that the hypothesis insists must be there. The new methods, electron microscopy, multiple phase microscopy, histochemistry, electrophoresis and flame photometry, properly applied may solve some of these problems. Once the facts are known ingenuity of the endocrinologists certainly should be able to correct the fault in any particular case.

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CUT RATES FOR THOSE UNDER 35

The Metropolitan Casualty Insurance Company, underwriters of the accident and health insurance plan sponsored by the MSMA, has reduced rates for the younger members under 35 years old.

The premium for the disability income benefits has been cut 25 per cent. The rate will revert to the regular premium on the renewal date after the insured reaches 35. Those under 35 and already insured will receive the reduction on the next renewal date of their policies.

The firm said the cut was being made to help younger physicians provide themselves with the protection during the years they were establishing their practice.

HEREDITY COUNSELORS' WORK EXPLAINED

The chances of children inheriting certain physical and mental defects often can be predicted and in recent years more than 15 little known "heredity counseling" clinics connected with medical centers or universities have quietly sprung up in the United States and Canada. The counseling is done by geneticists-scientists trained in human heredity.

The work of these centers is described by a New York writer, Jack Harrison Pollack, in the March *Today's Health.*

Parents generally visit a heredity clinic after the birth of a defective child, but others also go to the clinics because a relative has a defect.

"The heredity counselor—who deals in facts, not fears—estimates the risks of a couple's future babies being born abnormal," the article said. "It isn't wild, hit-or-miss guesswork.

"Before any predictions are made, a family tree is carefully investigated. Advice-seekers often receive complete physical examinations. . . . A heredity counselor may also probe hospital records, search old family Bibles, and church records, and, occasionally, even drive hundreds of miles to interview distant relatives."

After evaluating all the facts, the counselor outlines the mathematical probability of a couple's children inheriting certain abnormalities, Pollack said. "Naturally no mere mortal can predict nature's handiwork with absolute certainty. Yet risks for malformation recurrences in families can frequently be estimated, even when an inheritance pattern is unclear."

The counselors never advise a couple about whether or not to have children. "Guiding instead of deciding," they merely try to clarify the couple's thinking by telling them the scientific likelihood of specific traits appearing in their unborn children so that they can make their own intelligent decision about having children.

Dr. Sheldon Feed, director of the University of Minnesota Dight Institute and a leading heredity counselor, was quoted as saying, "What is an acceptable risk for one family may not be for another. Many factors have to be considered, such as religious principles, guilt feelings, and whether the parents already have normal children."

Risks vary from 50 per cent down to practically zero, but they are usually much less than parents had feared, the article said.

Not only do the clinics give information about malformations, but also about hair, skin and eye color, multiple births, and susceptibility to such diseases as diabetes and schizophrenia.

Clinics are operating in Berkeley, Calif.; Chicago; New Orleans; Bethesda and Baltimore, Md.; Ann Arbor and Lansing, Mich.; Minneapolis; New York City; Winston-Salem, N. C.; Columbus, Ohio; Austin, Texas; Salt Lake City; Richmond, Va., and Montreal and Toronto, Canada.

STATE BOARD EXAMINATIONS

The Missouri State Board of Medical Examiners has scheduled the next State Board examination to be given at St. Louis, Washington and Missouri universities on May 30 and 31.

CITY HOSPITAL ALUMNI TO MEET

The St. Louis City Hospital Alumni Association will hold its seventieth annual meeting on Monday, April 14, at the Le Chateau Restaurant, 10405 Clayton Road, St. Louis County. The Missouri State Medical Association will be meeting in St. Louis at this time so alumni of the hospital will be able to attend this annual dinner party. Robert Koch, M.D., Clayton, is president of the St. Louis City Hospital Alumni Association.

Mass Screening for Glycosuria

Comparison of Copper Reduction (Benedict's Solution) and Glucose Oxidase Methods

W. H. OLMSTED, M.D., AND H. E. OPPENHEIMER, M.D., *St. Louis*

FOR THE LAST six years the device "Dreypak"[1] has been used by the St. Louis Diabetes Association to screen masses of people for glycosuria.[1]

It has been found that from 2 to 8 per cent of the dried urines collected may show reduction of copper. This is true because the testee is instructed to use the device one hour after eating a meal containing foods of high carbohydrate content. These results were obtained by using Benedict's qualitative reagent as an indication of the presence of sugar.

When those who had glycosuria were followed up with a postprandial blood sugar, it was found that 50 per cent of those with glycosuria showed postprandial blood sugars below 120 mgs. per cent. Thus, by means of these two steps, one could narrow down to a few individuals those who were likely to turn out to have diabetes.

Recently, devices have become available,* dependent on the specific enzymatic destruction of glucose.[2] The reaction being specific for glucose, should be ideal for the purpose of screening urines for sugar.

However, it was desirable to know the relative sensitiveness of the glucose oxidase devices compared with the old Benedict's copper reduction method. Furthermore, it would be desirable to know what percentage of individuals with glycosuria, determined by the use of the glucose oxidase method, turn out to show high postprandial blood sugars. What is the relationship of the percentage of glycosurias determined by Benedict's reduction of copper to the percentage found by glucose oxidase?

METHODS—PROCEDURE

During the Diabetes Detection Drive kits were prepared containing both Dreypaks, as well as the newer glucose oxidase devices. Anyone who showed a positive test by either method (or by both) was asked to return for a postprandial blood sugar. The blood sugars were done by the Shaffer-Somogyi method. The urine tests were read by physicians. The blood sugars could not be done at the same time as the urine was voided, but at a later date. The instructions regarding the ingestion of a carbohydrate meal were the same. The bloods were collected an hour after this meal.

EXPERIMENT 1

Two Dreypaks were enclosed in the same envelope, one of them being the regular Dreypak which had been sprayed with 1 per cent sodium fluoride. The other Dreypak, exactly the same in appearance, but in this case the filter paper was not impregnated with sodium fluoride.

The regular Dreypak was tested by immersing in boiling Benedict's solution for two minutes. The other Dreypak was rehydrated with a drop of distilled water and Tes-Tape was laid upon the wet filter paper and read at the end of one minute.

This experiment had two purposes: One, to see if the filter paper without fluoride would carry dried urinary sugar; second, to determine if urine rehydrated could be tested with Tes-Tape. We found that the filter paper could be used as a carrier for dried urine without a preservative, and that rehydrating and testing with the Tes-Tape was entirely feasible.

The highest level that normal postprandial blood sugars (one to two hours after a heavy carbohydrate meal) can reach was empirically set at 138 mgs. per cent.

It has been our experience that between the postprandial levels of 120 and 180 mgs. per cent, the higher the level the more likely the individual is to have diabetes. Since the normal individual rarely reaches 120 mgs. per cent 140 mgs. per cent seemed safe to take as a dividing line.

We classified the urine tests of the individuals whose blood sugars were below 140 mgs. per cent, and yet showed glycosuria, as false positives, and those whose blood sugars were above 140 mgs. per cent and whose urines were free of sugar by the reduction, or glucose oxidase, as false negatives. In table 1 there was only one instance in which both tests were positive—that was in the instance where the blood sugar was between 120 and 139 mgs. per cent. Dreypaks showed a false positive in three instances, and the Dreypak-Tes-Tape showed a false positive in 16 instances. Dreypak showed a positive, but Dreypak-Tes-Tape failed in one, and in four instances Dreypak failed to show the presence of elevated blood sugar while Dreypak-Tes-Tape did.

The work was made possible by the assistance of G. A. Mahe, M.D., Sidney Goldenberg, M.D., Paul Bettonville, M.D., and Marvin Levin, M.D., all of St. Louis. Supported by the St. Louis Diabetes Association.

* Clinistix, Ames Company.
Tes-Tape, Eli Lilly Company.

TABLE 1

	Both Positive	*Dreypak Positive Dreypak-Tes-Tape Negative*	*Dreypak Negative Draypak-Tes-Tape Positive*
60-79			4
80-99		2	9
100-119			2
120-139	1	1	1
	—	—	—
Below 140 mg. %	1	3	16 Total = 20
140-159		1	1
160-199	2		1
200-249	2		1
250-299	2		
300-399	1		1
400-			
	—	—	—
Above 140 mg. %	7	1	4 Total = 12

TABLE 2

	Both Positive	*Dreypak Positive Tes-Tape Negative*	*Dreypak Negative Tes-Tape Positive*
60-79	2		2
80-99	2		6
100-119	1	2	5
120-139	1	1	1
	—	—	—
Below 140 mg. %	6	3	14 Total = 23
140-159	2	1	
160-199	2		2
200-249	4	1	
250-299	1		
300-399		1	
400-			
	—	—	—
Above 140 mg. %	9	3	2 Total = 14

EXPERIMENT 2

In Experiment 2, Dreypak was placed in an envelope along with the test kit** supplied by the manufacturer. The individual was requested to dip both in the same urine at the same time—one hour after a full meal. Again, the false positives, those showing a positive result where the subsequent blood sugar was less than 140 mgs. per cent, were six in number. Dreypak was positive three times and Tes-Tape was positive 14 times. Thus, Tes-Tape was sensitive to levels of the blood sugars which were not indicative of abnormality. When considering the tests on individuals, in whom the blood sugars were elevated above 140 mgs. per cent, there were nine cases in which both were positive—they should be. Tes-Tape gave a false negative in three instances and Dreypak gave a false negative in two instances.

EXPERIMENT 3

In this experiment we included a Dreypak with the kit supplied by the Ames Company and the testee was asked to dip the two in the same urine at the same time. The same classification of tests in relation to blood sugars was done.

There were three instances of both tests showing false positives; four instances in which Dreypak was positive and Clinistix negative; eight instances in which Clinistix gave positive and Dreypak negative. Thus Clinistix showed, as Tes-Tape had, that it was more sensitive to tests where the blood sugars seemed to be low, than Dreypak was. Both were positive in 12 instances where the blood sugars were above 140 mgs. per cent, and in two instances Clinistix failed to be positive, and in one instance Dreypak failed.

TABLE 3

	Both Positive	*Dreypak Positive Clinistix Negative*	*Dreypak Negative Clinistix Positive*
60-79			1
80-99		1	1
100-119	1	2	1
120-139	2	1	5
	—	—	—
Below 140 mg. %	3	4	8 Total = 15
140-159	2		
160-199	3	1	1
200-249	3	1	
300-399	4		
400-			
	—	—	—
Above 140 mg. %	12	2	1 Total 15

The total false positives of the glucose oxidase tests (Tes-Tape and Clinistix together), as well as Dreypak-Tes-Tape done on individuals showing low blood sugars, were 58. The glucose oxidase showed a false positive 38 times, and Dreypak showed false positives 10 times. Both were false positive 10 times. Therefore the total false positives for glucose oxidase were 38 plus 10 or 48, and for Dreypak, 10 plus 10 or 20. The ratio of false positives of glucose oxidase/Dreypak was 12 to 5. Therefore, there are more than twice the false positives with glucose oxidase as with Dreypak.

There were 41 instances in which the individuals had high blood sugars. Dreypak and glucose oxidase agreed in 28 times. Dreypak gave a false negative seven times, and Tes-Tape and Clinistix gave false negatives six times.

COMMENTS AND CONCLUSIONS

In summary the results were exactly as one would expect since the glucose oxidase test is more sensitive than copper reduction. Moran, Lewis, Reinhold and Lukens[3] tested more than 2,000 urine specimens, both by reduction and glucose oxidase methods. They showed that some urines show a color change with the glucose oxidase method when the concentration of sugar was as little as .05 per cent. They did not do concurrent blood sugars. There was fairly good agreement, but they did not state whether the urines were postprandial or fasting.

Recently Jablohow, *et al.*, added known amounts of glucose to normal urines and requested 32 observers to test these with the glucose oxidase

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** Tes-Tape.

device (Tes-Tape), recording their results. The interpretations these observers recorded tended to be much less than the actual content of glucose. Attention is called to the fact that at the level of .1 per cent glucose, of 108 tests, all but 10 observers recognized the presence of sugar in the urine specimens.

From our experience with many thousands of tests, using Dreypak as carrier and Benedict's Solution as testing solution, 0.5 per cent of sugar is the lowest level to be recognized readily and consistently. Thus the glucose oxidase testing devices, at the lowest levels of glucose in the urine, are five times more sensitive.

From this preliminary experience it appears that as screening devices, glucose oxidase will give positive postprandial tests in urines from people who probably do not have diabetes. However, the number of individuals tested showing glycosuria and followed up with blood sugars, are only one hundred. If, of people tested by the Dreypak-Benedict's method, one out of two proved to be diabetic, we may, if these preliminary results are confirmed, expect one out of five to be diabetic using the glucose oxidase technic.

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A.M.A. TO PUBLISH TABLOID NEWSPAPER

The American Medical Association has announced that it will soon publish a new, 16 page tabloid newspaper called *The A.M.A. News* and that it will be distributed every two weeks to approximately 200,000 physicians.

In making the announcement, Dr. F. J. L. Blasingame, newly appointed general manager of the A.M.A., said the paper "will bring to the attention of our members the multitude of projects and activities carried on by their association, as well as other nonscientific news of special interest to the medical profession."

Much of the news appearing in the publication will come from state and county medical societies as well as from a number of correspondents located in key geographical areas.

"In this way," Dr. Blasingame said, "all physicians will be kept informed of what is going on in medicine in other states."

He said also that the publication will carry advertising and that the editorial staff will work at the association's Chicago headquarters.

The first issue of the tabloid newspaper is expected to be ready for distribution at the annual A.M.A. convention in San Francisco, June 23-27.

RISE IN MORTALITY LAST YEAR

In 1957, according to the Metropolitan Life Insurance Company, mortality among its industrial policyholders rose to the highest level in a decade. The death rate for all ages combined increased about 6 per cent—from 6.2 in 1956 to 6.6 in 1957 per 1,000. The *Statistical Bulletin* states that this reflects largely the widespread prevalence of Asian influenza and other upper respiratory infections last autumn.

In the fourth quarter of the year the total mortality rate was 16 per cent above the corresponding rate for 1956. However, the death rate for the year 1957 was lower than that for any year prior to 1947 and little more than half that recorded in 1911. It is felt that when allowance is made for the increase in the average of the insured lives since 1911, the improvement is nearly two thirds. It is stated that if the death rates by age, sex and color prevailing in 1911 had continued unchanged there would have been about 299,000 deaths among the company's industrial policyholders instead of the 115,000 actually reported.

For each sex the mortality rate at ages 1 to 74 years combined was higher in 1957 than in the year before. Among white males the increase was 4 per cent, each age period beyond the preschool ages showing a rise. Among white females the age-adjusted death rate at ages 1 to 74 was only 2 per cent higher last year than in 1956.

Among nonwhite males the age-adjusted mortality rate, ages 1 to 74, rose from 9.1 to 9.6 per 1,000, or 5 per cent, between 1956 and 1957; among nonwhite females the corresponding increase was 4 per cent—from 6.8 to 7.1.

The cardiovascular-renal diseases showed a marked rise in mortality—from 328.6 per 100,000 in 1956 to 348.7 in 1957—reflecting the vulnerability of people with these conditions to the acute respiratory infections which prevailed last autumn. Each of the components of this group of chronic diseases recorded an increase. In recent years the cardiovascular renal diseases have comprised somewhat more than half the total mortality in the Metropolitan's insurance experience. Deaths from diseases of the coronary arteries alone account for about one third of all the cardiovascular-renal deaths and for nearly one sixth of the deaths from all causes combined.

The mortality from cancer rose from 128.7 per 100,000 in 1956 to 136.2 in 1957. For cancer of the digestive system the increase was 6 per cent and for respiratory cancer it was 9 per cent. Malignancies, as a whole, now comprise one fifth of the total mortality.

A 43 per cent increase was recorded in the death rate from pneumonia and influenza combined, the rate rising from 14.0 to 20.0 per 100,000.

Tuberculosis mortality reached an all-time low of 6.7 per 100,000. In 1957 the death rate from poliomyelitis was only 0.1 per 100,000, compared with 0.3 the year before. Despite the increase in the number of births, the mortality from the complications of pregnancy and childbirth, among the industrial policyholders, remained at the record low of 0.9 per 100,000, the rate established in 1956.

Grand Rounds Medical Conference

Pheochromocytoma

Saint Louis University School of Medicine

Dr. John Shields: The case for presentation today is that of a 16 year old white boy who entered Firmin Desloge Hospital on June 22, 1957, and was discharged July 30, 1957, having had a pheochromocytoma removed on this admission. This boy was well until two years prior to admission when he noted the onset of severe occipital headaches occurring two or three times a day and lasting one half hour. Several months later he began to vomit each morning upon arising. His physian told him he had hypertension. For the last twelve to eighteen months, he had noted marked weakness, easy fatigability and dyspnea on exertion. In addition he had had episodes of palpitation associated with profuse diaphoresis. His physician told him that he had Bright's disease and prescribed pills for his hypertension, which at that time was in the range of 220 to 240 millimeters of mercury systolic. We have no information regarding the urinary findings. He remained essentially the same until three weeks before this admission when his vision became severely impaired and he developed pain in both eyes.

His past history, exclusive of these complaints, was essentially normal. He gave a history of no urinary tract infection, edema or hematuria. He also said he did not have frequent respiratory infections. Both parents are alive and well. Two aunts are known to have hypertension and his maternal grandmother, an aunt and a cousin have diabetes.

Physical examination revealed a boy who appeared to be his stated age and who was lying in bed in no apparent distress. His temperature was 98.6 F., the pulse was 140 per minute and regular, the blood pressure was 200/160 millimeters of mercury in the right arm and 195/150 millimeters of mercury in the left arm, and 240/160 millimeters of mercury in the left leg. There was increased moisture of the skin. There were no areas of abnormal pigmentation of the skin. There was slight periorbital edema. Fundoscopic examination revealed dilated veins, arteriovenous nicking, hemorrhages, exudates and bilateral papilledema. The lungs were clear to auscultation and percussion. The heart was not enlarged to percussion; the rhythm was rapid and regular. The mitral first sound and the aortic second sound were both markedly accentuated. There was a high pitched, squeaking grade II out of VI systolic murmur heard best in the fourth interspace just to the left of the sternum. No abdominal masses were palpated. Peripheral pulses were strong in all extremities. There was no dependent edema. A neurologic examination was within normal limits except for the visual impairment. The impression was hypertension, probably due to renal disease, but pheochromocytoma would have to be ruled out.

The hemogram was essentially normal on admission as it was when repeated at a later date. The VDRL was negative. The urinalysis revealed a trace of albumin consistently, specific gravity of 1.014 (1.015 and 1.017 on later examinations), and normal microscopic findings. The Addis count was normal on two occasions. The electrocardiogram revealed sinus tachycardia and myocardial change, but no definite evidence of left ventricular hypertrophy. The basal metabolic rate was plus 17 per cent, the radioactive iodine uptake test was 20 per cent uptake by the thyroid gland at 24 hours. A glucose tolerance test revealed blood sugar values of 90, 250, 200 and 160 mg. per cent for the fasting, one hour, two hour, and three hour specimens.

With a base line of approximately 200 mm. of mercury for mean blood pressure previously established, 5 milligrams of Regitine was administered intravenously. Immediately after the injection there was a dramatic fall in mean pressure, to approximately 90 mm. of mercury; a low blood

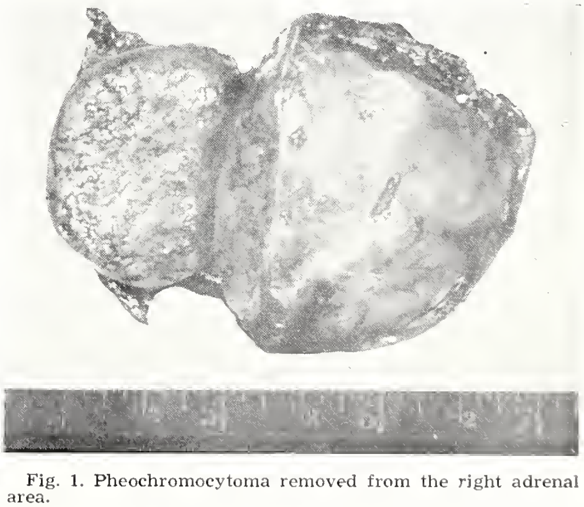

Fig. 1. Pheochromocytoma removed from the right adrenal area.

These conferences are conducted each Friday morning in Miller Hall, Firmin Desloge Hospital, and are participated in by members of the Medical Staff and the Basic Science Departments.

Recordings of these conferences are edited and abstracted by William A. Knight, Jr., M.D., and Joseph B. Vacca, M.D.

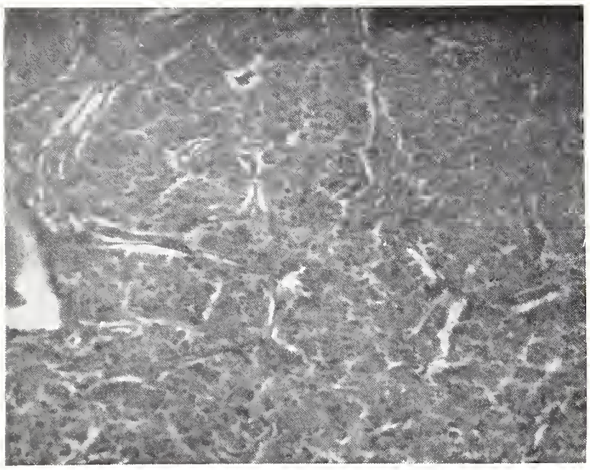

Fig. 2. Photomicrograph of microscopic section of pheochromocytoma on this patient.

pressure was maintained for at least five minutes following the injection of Regitine. The patient had been on a half grain of phenobarbital four times daily for four days prior to the Regitine test which raised some question as to the validity of the results. However, radiologic studies and determinations of urinary and blood catecholamine levels substantiated the diagnosis of pheochromocytoma. The catecholamine determinations and the radiologic findings will be discussed later. On July 23, 1957, a rather large pheochromocytoma was removed from the area of the right adrenal gland (figs. 1 and 2).

Dr. W. K. Mueller: A chest roentgenogram taken on June 24, 1957, demonstrates normal size and contour of the heart and great vessels. The hilar shadows, lung fields, diaphragm and bony structures are within normal limits. Intravenous pyelography showed visualization of the renal pelves but the calyces were poorly visualized. Films taken after the injection of air into the presacral space demonstrated a soft tissue mass approximately 8 to 10 cm. in diameter superimposing the upper pole of the right kidney which was interpreted, in view of the clinical picture, as representing a pheochromocytoma (fig. 3).

Dr. W. A. Knight: Dr. Janney, do you feel that all patients with hypertension should be screened for the possibility of pheochromocytoma? In other words, what do you think is necessary for the proper etiologic evaluation of the patient with hypertension?

Dr. J. G. Janney: This question as to whether all patients with hypertension should be evaluated for a possible pheochromocytoma has been considered and written about by a great number of people. The incidence of pheochromocytoma in a group of people with hypertension is probably less than 0.5 per cent; actually, probably a good deal less than that. I think that everyone will agree that a young person with hypertension, especially if this person is thin and the hypertension of recent onset, or if there is a paroxysmal nature to the hypertension, or if the history is suggestive of a paroxysmal nature of the hypertension, then this person should certainly have a complete evaluation for the possibility of pheochromocytoma. In the clinic here we are routinely screening patients with hypertension for pheochromocytoma. I think that in private practice, where economics become a greater factor, one might be somewhat more selective and do screening tests only on patients in whom there is something to suggest the possibility of pheochromocytoma.

It might be worthwhile mentioning just briefly the particular symptoms which should arouse suspicion about the presence of a pheochromocytoma. Epinephrine or norepinephrine or a combination of both of these substances are secreted by pheochromocytomas and almost all of the signs and symptoms associated with pheochromocytoma may be related to the presence of one or both of these substances. The pressor effect of norepinephrine may cause a severe hypertension and all the things that come secondary to a severe hypertension, such as cerebral hemorrhage, cardiac failure, the secondary renal changes that may occur, and fundoscopic abnormalities. The effect of adrenalin on metabolism and on the heart may produce palpitation, tachycardia, anxiety, glycosuria, hyperglycemia, increased basal metabolic rate, weight loss, and various vasomotor symptoms such as sweating.

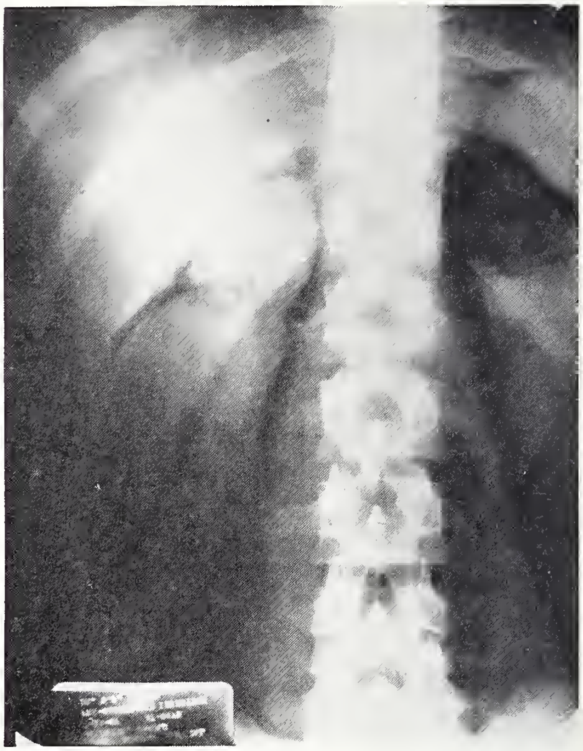

Fig. 3. Presacral air injection studies demonstrating tumor mass in the right adrenal area.

I would like to point out one thing that occurs clinically which I had not previously thought about until I recently reviewed this subject; that is the fact that almost invariably the patients with pheochromocytoma are thin individuals. I think that this is an important clinical point and, if substantiated, probably would eliminate a great number of people from consideration for screening procedures for pheochromocytoma. I assume that this occurs in association with the increased metabolism that occurs secondary to these tumors. The case being presented this morning was that of a thin individual who had recently lost a considerable amount of weight.

In regard to the tests for pheochromocytoma, I think that here are several factors of which clinicians should be aware. There are a large number of drugs that may interfere with test drugs for pheochromocytoma. If one is testing a patient for pheochromocytoma it is important that the patient is not taking any of these substances before the pharmacologic tests. Included in this group are any of the sedatives, the barbiturates, chloral hydrate, and practically any of the hypotensive drugs. It is important, therefore, that when doing the pharmacologic testing for pheochromocytoma one if sure that the patient has not been on these substances, sometimes for long periods of time prior to the test. For example, with reserpine or any of the serpasil derivatives, it is probably necessary for the patient to be off of these drugs for approximately two weeks before the test. Uremia also will interfere with the pharmacologic tests for pheochromocytoma.

DR. KNIGHT: I have asked Dr. Neu to review some of the clinical aspects of pheochromocytoma.

DR. L. T. NEU: Approximately 70 per cent of cases of pheochromocytoma have a sustained hypertension similar to essential hypertension of the benign or malignant variety. Therefore, the diagnosis cannot be made in these patients without reliable pharmacologic tests.

My remarks will concern themselves with the other 30 per cent of patients with pheochromocytoma. These patients have a paroxysmal hypertension with a variety of symptoms during these hypertensive episodes. In these cases, plus those that have a constantly elevated blood pressure with intermittent worsening of the blood pressure elevation, the diagnosis may be shrewdly suspected and sometimes made from the clinical features alone.

The symptoms characteristic of pheochromocytoma in these cases consist of the effects of sudden release of epinephrine and norepinephrine into the blood stream from the tumor. The symptoms may include any or all of the following: headaches, palpitation, tachycardia, bradycardia, precordial or abdominal pain, blanching of the skin, pallor, flushing, nausea, vomiting, profuse sweating, blindness, asphasia, loss of consciousness or convulsive twitching.

These symptoms are combined into paroxysmal attacks of from two seconds to two hours duration and of a frequency of from ten to twenty times a day to once or twice a month. If the attacks persist over a long period of time the patient will tell of an increase in frequency but usually not of increasing severity. These attacks, if severe, may result in cerebrovascular accident, shock or pulmonary edema.

Besides eliciting a history of intermittent hypertension, the following findings may be helpful: (a) 14 per cent of pheochromocytomas are palpable; occasionally palpation of the abdomen may give a dramatic increase in the blood pressure; if such is anticipated, Regitine should be available as a therapeutic agent; (b) the diagnosis is to be suspected in all young hypertensive patients, especially if there is wide fluctuations of blood pressure in the hypertensive range, if the increased blood pressure is precipitated by anesthesia, surgery, trauma, or has its onset in the puerperium, pregnancy, or at any other time of acute stress, or if the elevated blood pressure is associated with an increased basal metabolic rate, glycosuria or hyperglycemia; (c) 10 per cent of patients with pheochromocytoma have some form of neurocutaneous disorder; hence, one should suspect pheochromocytoma in a hypertensive patient who has Von Recklinghausen's disease, tuberous sclerosis, Hippel-Lindau syndrome, or any other neurocutaneous affliction.

From the aforementioned statements, one can readily understand the possibility of confusion of pheochromocytoma with diabetes mellitus or hyperthyroidism. In regard to hyperthyroidism, besides an elevated basal metabolic rate pheochromocytoma patients may have an enlarged thyroid, exophthalmos, or an increased protein-bound iodine.

Renal abnormalities are also present in patients with pheochromocytoma. Hematuria, proteinuria and cylinduria may occur persistently or paroxysmally even in the absence of hypertension. For example, in one series of 18 patients with pheochromocytoma reported from Johns Hopkins Hospital, one half had normal urine between attacks of intermittent hypertension, one sixth had intermittent proteinuria between attacks, and one third had constant proteinuria; of these six patients with constant proteinuria, only five had a constantly increased blood pressure. Thus, one must be on guard not to miss a diagnosis of pheochromocytoma by ascribing hypertension to a renal etiology solely on the basis of proteinuria, cylinduria or other abnormal renal functions.

In conclusion, only by awareness of the clinical signs and the employment of proper diagnostic tests, when indicated, can pheochromocytomas be diagnosed and separated from essential hypertension, diabetes mellitus, hyperthyroidism, and hypertension secondary to renal disease.

DR. KNIGHT: Doctor Janney has mentioned that these tumors may secrete adrenalin or noradrenalin. Dr. Hertzman, would you discuss the differential physiology of epinephrine and norepinephrine on the cardiovascular system?

DR. ALRICK B. HERTZMAN: This is an interesting subject. I would also like to throw into this discussion some personal observations on the difference in action on the cardiovascular system of adrenalin and noradrenalin.

These two compounds, epinephrine and norepinephrine, have been known for more than half a century. They are not at all new in the pharmacologic field. Norepinephrine has aroused a great deal of interest in the last few years, primarily because of the work of Von Euler in Stockholm who became interested in the theory of Walter Cannon in which symphathin is considered to be the mediator of the sympathetic nervous system. Symphathin can be eliminated from today's discussion since, because of Von Euler's work, norepinephrine has been shown to be the mediator of the symphathetic nervous system.

These two compounds differ only in that the amino group is methylated in epinephrine; this is a curious situation because from the teleologic viewpoint norepinephrine is a much better compound. Why the body has elected to methylate an amino group and produce epinephrine has always been considered a rather curious phenomenon. It has been stated that both of these compounds occur in chromaffin tissue and in chromaffin tumors. There seems to be a predilection, however, for a markedly different output of norepinephrine. There is, apparently, a greater predilection for the tissues of these tumors to contain larger amounts of norepinephrine.

As to differences in their action, this will be a difficult matter to differentiate without the use of a lot of qualifying statements. Generally speaking, epinephrine as a vasodilator, and norepinephrine is a vasoconstrictor. Now this statement is not accurate. If one calculates the difference in resistance to cardiac output, it diminishes with epinephrine and it rises with norepinephrine. Both compounds raise the blood pressure, but the increase in blood pressure from epinephrine is due to the increased cardiac output against the lowered overall resistance. In the case of norepinephrine, the increased cardiac output is negligible and the increase in blood pressure is due to an increased overall resistance peripherally to cardiac output. So the differentiation in regard to pressor actions is real indeed.

When one looks at the actions of these two compounds on certain vascular beds, some similarities as well as some striking differences appear. In the case of the finger blood vessels, both drugs have exactly the same pressor action. As far as the cutaneous circulation is concerned, I know personally that there is no difference between the actions of these two compounds. However, in the case of skeletal muscle, epinephrine is a dilator (at least this is true in all the British laboratories; however, in other areas this has been denied). But by and large, it is the general impression that epinephrine dilates the vessels in the skeletal muscle while norepinephrine is a constrictor. In respect to the coronary system, apparently they act much alike, producing dilatation throughout the coronary system.

One would wonder as to their physiologic role. Norepinephrine is secreted by the adrenal medulla and would tend to reinforce the action of sympathetic nerves all over the body. Epinephrine would not. Epinephrine would tend to meet an emergency in the sense of mobilizing blood for certain areas, increasing cardiac output, increasing the strength of cardiac contractions, increasing flow to the coronary system and increasing flow through the skeletal muscle. It would tend to abet the situation in heavy exercise as its net effect is to lower peripheral resistance to the cardiac output. Norepinephrine does not function in that sense, so its emergency rule would be quite different, that is, the maintenance of adequate cardiac output to areas of increased resistance throughout the body.

I suppose the norepinephrine output from the adrenal glands must be more essential to the operation of the sympathetic nerves than to meeting an emergency. This brings up the question as to what causes the episodes of the elevated blood pressure exhibited with these chromaffin tumors. I see the statement made quite frequently that these tumors are not innervated. If they are not innervated, excitement of the individual or similar situations would not elicit an outpouring of the epinephrine or norepinephrine. Therefore, the variations in output must be related to other factors; of these factors, the mechanical ones would be most important. I do not expect cycles in secretion to vary in non-innervated tissue unless the patient is being influenced by a humoral factor rather than innervation. Therefore the irregular, aperiodic variations in blood pressure in these individuals must be related to mechanical factors causing varying degrees of release of these two substances from the tumor tissue.

DR. KNIGHT: Doctor Caciolo, I believe you have been interested in the study of pheochromocytoma for some time, and have been doing the determinations of epinephrine and norepinephrine substances in these patients. Would you give us the results of your studies in this patient?

DR. CARLO CACIOLO: Hyperfunction of the adrenal medulla in man is due to chromaffin tumors, called pheochromocytomas, which may originate in the adrenal medulla or in the extrasympathetic adrenal structures or wherever chromaffin tissue is found in the body. For many years, pheochromocytoma was considered an extremely rare condition of little clinical importance because cases had remained undiagnosed. It is now being diagnosed with increasing frequency, partially because of increased awareness of the clinical syndrome produced by release of adrenalin and noradrenalin by these tumors and partly because more precise and more specific pharmacologic tests are available.

The most accurate and specific test for the diagnosis of a functioning pheochromocytoma is the measurement of increased amounts of catecholamines in the urine and blood. It must be emphasized, however, that a high catecholamine level can be detected only if there is a continuous secretion of the hypertensive substances from the adrenal medulla or if the determinations are done during the period of hypertension in paroxysmal forms of this disorder. Normal catecholamine levels have been recorded in a number of cases in which a pheochromocytoma was later found. In those cases in which pheochromocytoma is suspected, during phases of normal blood pressure values, the catecholamine studies should be made after a provocative test such as after histamine injection; this directly stimulates the chromaffin tissue of the tumors to secrete increased amounts of catecholamine.

I have been using in my laboratory the method of the English investigators, Weil-Malharbe and Bone. At present I am only able to determine total catecholamines and epinephrine-like substances. Refinements are in process and soon it is hoped that epinephrine and norepinephrine substances can be measured.

The range of normal blood values given in the literature is 0.3 to 3 micrograms per liter with a mean of 1.8 micrograms per liter. In my series of normal subjects, the range is between 0.5 and 2.5 micrograms per liter. The range of normal urinary catecholamines is between 40 and 100 micrograms per 24 hours. The urinary excretion range is broad and situations such as trauma, surgical procedures, fever and myocardial infarction can be associated with increased values. Therefore, it is difficult to absolutely establish the diagnosis of pheochromocytoma when the values are only slightly elevated. It has been decided generally, from the literature, that a lower limit of excretion of catecholamines of 200 micrograms per 24 hours is necessary to substantiate the diagnosis of pheochromocytoma. The blood determination of catecholamines is an estimation of the serum activity at any given moment and is valued particularly in a paroxysmal type of pheochromocytoma.

On July 2, 1957, there was a fall in blood pressure of this patient and on that day the catecholamines in the serum were 3.5 micrograms per liter. This value is probably an equivocal one and is probably correlated with the lowering of his blood pressure. The test was repeated on July 8, 1957, and the serum showed 6 micrograms per liter. A twenty-four urinary catecholamine determination was 1,304 micrograms on this latter date. On July 18, 1957, the serum value was 4.9 micrograms per liter. On July 25, a urinary catecholamine determination was 450 micrograms in a 12 hour period. The urinary catecholamine determination done postoperatively showed 130 micrograms per 24 hours. This represents a definite fall from the preoperative values. As assay of the tumor tissue removed at surgery revealed a concentration of catecholamines of 3.7 milligrams per gram of tumor tissue. The normal assay for catecholamines from the adrenal medulla reported in the literature is between 1 and 2 milligrams per gram of tissue.

Catecholamine values obtained on a 34 year old woman referred to me for catecholamine studies from another hospital on August 18, 1957, showed a serum value of 7.2 micrograms per liter and a urine value of 472 micrograms per 12 hours. Repeat studies done August 20, 1957, gave almost identical values. She had a pheochromocytoma weighing 329 grams which was removed from the right adrenal area a short time later. Perhaps someone here would comment on why such a great majority of these pheochromocytomas occur on the right side, as they did on this woman and in the patient that is being presented here at conference today. This has also been noted by many authors in the literature.

From various studies it has been noted that there is no good correlation between the height of the blood pressure and the level of the pressor amines.

Postoperatively, patients that had pheochromocytoma will usually have a precipitous fall in the serum catecholamine values. However, the urinary catecholamine excretion may remain high, normal or higher than normal even after removal of all apparent tumor. The reason for this may be a compensatory over-activity of the sympathetic system. Another explanation is that there may be residual tumor left and following the patient with urinary and serum catecholamine determinations may be of value in the decision as to whether or not re-operation is necessary.

DR. KNIGHT: As has been pointed out here, an elevated basal metabolic rate occurs frequently in patients with pheochromocytoma. Also frequently observed is hyperglycemia and glycosuria. I have asked Dr. Oppenheimer to discuss the abnormal glucose metabolism in patients with pheochromocytoma, and Dr. Thoma to explain the elevated basal metabolic rate.

DR. HENRY OPPENHEIMER: This patient had hyperglycemia. Not every patient with an elevated blood sugar has "diabetes mellitus"; however, the great majority of cases of hyperglycemia are due to what is called diabetes mellitus.

Hyperglycemia can be classified (I realize I am somewhat over-simplying this) into those cases that are caused by decreased tissue utilization of glucose and into those due to increased hepatic glycogenolysis. Those that are due to decreased tissue utilization are (1) diabetes mellitus,

(2) disease of over-activity of the anterior pituitary gland, and (3) diseases of over-activity of the adrenal cortex. These three things are inter-related. People with increased anterior pituitary or adrenal cortical activity are considered diabetic. The second group, those with increased hepatic glycogenolysis include mainly (1) those with over-activity of the thyroid gland, (2) those patients with pheochromocytomas, and (3) those with decreased blood pH as occurs with ether anesthesia, asphyxia or acidosis due to almost any cause. Similar to the hyperglycemia of pheochromocytoma is the hyperglycemia that occurs in head injuries, probably due to increased sympathetic activity with outpouring of adrenalin and noradrenalin-like substances.

Now this patient's glucose tolerance curve falls into a pattern that fits this concept rather well. There is a normal fasting blood sugar and at one hour the level is 252 mg. per cent. At two hours, the value is approximately 200 mg. per cent., and at three hours approximately 150 mg. per cent; however, I do not believe that this patient had diabetes mellitus.

Epinephrine does cause increased tissue glycogenolysis. This increased glycogenolysis will increase the blood sugar levels at the two and three hour periods by itself. I contend that this abnormal curve is not due to true diabetes mellitus in this individual, first of all, because of the peaked curve and, secondly, this being a young, thin male, his diabetes would in all probability be the juvenile type and would be associated with a high fasting blood sugar. In the obese, maturity type of diabetes, the fasting blood sugar is not necessarily elevated.

Dr. George Thoma: Since in these patients with pheochromocytoma, anxiety, tachycardia, palpitations, elevated blood pressure, and so forth, are frequently the principal clinical findings, and since these also occur in hyperthyroidism, hyperthyroidism must be considered in the differential diagnosis. However, hyperthyroidism can be simply excluded by employing at least two out of the three or four simple, basic, presumptive tests of thyroid function, these being the basal metabolic rate, the radio-active iodine uptake and the protein-bound iodine. One would expect the basal metabolic rate to be elevated in these patients because, after all, the basal metabolic rate does not measure the thyroid function but rather measures the total metabolism of the patient at the time that the test is being performed by measuring the total oxygen consumption. Therefore, any condition which raises the general body metabolism will raise the basal metabolic rate, such as fever, malignancy, pheochromocytoma. The radio-active iodine uptake test merely measures the avidity of the thyroid gland for iodine, which is one of the major building blocks of the thyroid hormone. An elevated radio-active iodine uptake is presumptive evidence that the thyroid is making more thyroid hormone. In patients with pheochromocytoma, unless they have a coincidental hyperthyroidism, the radio-active iodine uptake will be normal, with an elevated basal metabolic rate. The protein-bound iodine determinations are another presumptive test which measures the amount of iodine bound to protein and considered to represent the amount of circulating thyroid hormone. The patient with pheochromocytoma again is euthyroid and therefore has normal levels of protein-bound iodine. Therefore, in this differential diagnosis, an elevated basal metabolic rate with either a normal protein-bound iodine or radio-active iodine uptake, whichever is performed, will certainly exclude the diagnosis of thyrotoxicosis.

Dr. Knight: Dr. Melick, will you discuss the surgical aspects of this disease and in particular in this patient? This is one of the few cases of hypertension which one can say is "cured by surgery."

Dr. William F. Melick: The surgical considerations of pheochromocytoma may be stated briefly; they consist of four facets: (1) consideration of the preoperative preparation of the patient; (2) the surgery itself and the approach used; (3) management of the patient during surgery with respect to control of blood pressure; and (4) the management of blood pressure in the postoperative period.

I believe, since the adrenal gland is being removed completely, that the utilization of cortisone or cortisone-like preparations preoperatively probably makes the surgery of pheochromocytoma safer and probably somewhat simpler. As to the surgery itself, there are two schools of thought; one group maintains that one should always approach these tumors with a transverse abdominal incision since one is never quite sure where the tumors will be; they may be around the root of the mesentery, around the great vessels, or they may even be in the mediastinum. Someone has already mentioned that they are usually on the right side, however. However, most urologists favor the shorter approach, which is the retroperitoneal approach, with one or more rib resections. I am reminded at this point of an old story that comes from a French cookbook that describes how one goes about preparing rabbit stew; the first thing one has to do, it says in this book, is to catch the rabbit; thus in the surgery of pheochromocytoma, if one knows where the tumor is, as can sometimes be demonstrated by presacral air injection studies, then it becomes simple to attack it directly through the retroperitoneal route.

The surgical approach has to accomplish two things: first of all, one has to be able to visualize adequately the tumor and, secondly, one must be able to ligate the vessels to this tumor, preferably before the tumor is manipulated if that is possible. The reason for this is, of course, that when one touches these tumors one can precipitate marked elevation of blood pressure.

In this operation when it was thought that all the vessels to this tumor were ligated and attempt was made to deliver the tumor from the wound, there was a marked elevation of blood pressure. Dr. Schweiss, the anesthesiologist, controlled this elevation of blood pressure by the use of intravenous Regitine. I believe Regitine and Levophed should both be available for intravenous use in a double-barreled arrangement so that at any point during the operation, whether the blood pressure goes up during manipulation or falls after the tumor is removed, the situation can be corrected by the use of these drugs. Once this blood pressure elevation was controlled with the Regitine we were able to go back and demonstrate a vein leading directly from the tumor to the vena cava which was at that time successfully ligated. From that time on, the blood pressure remained at less hypertensive levels and did not rise precipitously again. In this case, as usually occurs, after the removal of the tumor, there was a striking fall in the blood pressure down to subnormal levels. The blood pressure can be elevated to more normal levels by the use of Levophed.

Often for several days postoperatively small quantities of Levophed intravenously are needed continuously to maintain blood pressure out of the hypotensive range. This patient required a slow infusion of fluids with one ampule of Levophed per 1000 cc. for several days postoperatively to maintain a normal blood pressure.

In some cases, in addition to the necessary preoperative preparation, the regulation of blood pressure during manipulation of the tumor, and the postoperative control of the usual hypotension, the surgical problem resolves itself into whether a transabdominal approach or a retroperitoneal approach is used. In the case in which the tumor mass can be localized preoperatively, as it was in this case, the retroperitoneal approach with rib resection is the logical one. In a case in which the area of the tumor cannot be delineated preoperatively, an adequate abdominal exploration with the transverse abdominal approach is probably desirable.

Dr. Jack Zuckner: I would like to ask Dr. Melick why he feels preoperative preparation with cortisone or related substances is necessary in patients with pheochromocytoma. I was under the impression that only in the situations in which there was hyperfunction of the adrenal cortex or in patients in whom there was impairment of function of the adrenal cortex as the principal clinical feature was it necessary to give these substances. Cortisone would probably not suppress any of the hyperfunctioning of this patient's adrenal gland as the difficulty was adrenal medullary rather than adrenal cortical.

Dr. Melick: It has been my impression that in all types of adrenal surgery the course on the operating table and postoperatively is smoother if one has prepared the patient with adrenocortical hormones. Granted, this man's difficulty was primarily of the adrenal medulla, but we were also removing adrenal cortex; therefore, I think that in the situation in which one cannot specifically exclude difficulties in relationship to postoperative relative adrenal insufficiency it is wise to prepare these patients with adrenocortical hormones.

Dr. Oppenheimer: A couple of points that I neglected to mention in my previous discussion: first, theoretically at least, epinephrine may act through the pituitary-adrenal axis. In this way, it can also affect glucose metabolism and, in fact, one might wonder if it could not produce a permanent type diabetes as occurs in hyperfunction of the anterior pituitary. Secondly, I wonder if excessive amounts of epinephrine substances could not induce a true diabetes mellitus in the person who was susceptible as is known to occur in hyperthyroidism. As it has been brought out in his history, this boy does have a family history of diabetes mellitus.

Dr. Knight: I would like to emphasize a couple of things that have already been mentioned here in reference to the preoperative preparation of the patient for adrenalectomy with cortisone and related substances. It is in the situation in which the adrenal-pituitary axis is imbalanced that the need for preoperative preparation for this type is necessary. In this patient, as in other patients with pheochromocytoma, it is likely that his adrenal-pituitary axis was intact and therefore that the cortisone preparation was perhaps not absolutely indicated. On the other hand, perhaps there are relative contraindications for the use of cortisone preoperatively in the patient with pheochromocytoma as it may augment an already elevated blood pressure and may augment an already hyperglycemic state.

However, as Dr. Melick has pointed out, and no one can argue with him about this, there seems to be, in his experience, a definite smoothening of the course of the patient during the operation and postoperatively by preparation with cortisone or related substances.

Dr. Janney: I would like to ask Dr. Melick about the use of presacral air injection studies in contradistinction to the use of perirenal air studies.

Dr. Melick: Presacral air injection studies have been found to be far less dangerous than the use of perirenal air insufflation. The incidence of shock-like reactions and of air embolism is considerably higher in perirenal insufflation than in the presacral air studies. However, there have been one or two deaths reported secondary to presacral air injection studies in the last month or so in the urological literature. It should be remembered, therefore, that although this procedure may yield considerable information, there is a certain amount of danger in this procedure also. It has also been suggested recently that carbon dioxide be used as the substance injected rather than air because of its greater safety.

DR. G. O. BROUN: In respect to the use of carbon dioxide as the injectable substance, I would like to mention that there was a recent article in the *Annals of Internal Medicine* concerning the use of carbon dioxide as the substance injected intravenously to visualize the various chambers of the heart. It was the conclusion of that study that carbon dioxide was considered to be safer than either air or oxygen when used in this manner and therefore would seem much more desirable and quite safe when used for presacral injection.

The diagnosis in this boy was not the result of a large body of experience in this subject. I have been looking for a case of pheochromocytoma ever since the first pharmacologic tests became available. I can give a follow-up on the case presented today also as I saw him just a week ago. When he was first admitted to this hospital his vision was so poor that he could read only the largest of headlines in the newspaper. Now he is back in school and reading without any difficulty at all. His blood pressure on this visit was 110/70 mm. Hg.

DR. KNIGHT: I have asked the pathology department to give some information about the incidence of malignancy in these tumors.

DR. ROBERT GRESICK: There have not been many pheochromocytomas of the malignant type reported. In most of the series that I reviewed, anywhere from 8 to 11 or 12 per cent of these tumors have been considered malignant histologically. It is not clear from the literature whether the malignant cases were malignant to start with or whether they were a transition from the benign to a malignant type of pheochromocytoma. It is difficult to decide in some of these tumors whether it is a benign or malignant tumor histologically. Some of the benign forms have a certain amount of pleomorphism and one can also see vascular channel invasion and tumor cells in the capsule in these so-called benign types.

Many authors who write about pheochromocytoma emphasize the fact that pheochromocytomas are different from most any other type of tumor in that the criteria of blood vessel invasion, pleomorphism and capsular invasion may occur in benign tumors; thus in this type of tumor, these characteristics are not used to establish malignancy. Therefore, in pheochromocytoma there may be histologic evidence generally considered to suggest malignancy, but they will, in many cases, be biologically benign. On the other hand, there have been reported cases of pheochromocytomas, benign by all criteria including the lack of pleomorphism, blood vessel invasion and capsular invasion, that have recurred several years later with evidence of metastases to many structures and proven histologically to be the same tumor as seen originally. Thus, this type of tumor may demonstrate biologic malignancy and histologic-benignancy.

DR. KNIGHT: Are there any further questions or comments? If not, in conclusion I think we might say that we have fairly well covered the clinical features, the diagnostic procedures available, some of the pharmacology, the pathology and the surgical aspects of pheochromocytoma.

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THE PEOPLE MUST CHOOSE

This article is reprinted with the permission of the Blue Shield Medical Care Plans in Chicago. It appeared in their February *Newsletter*:

"A FREE RIDE VS. A FREE NATION may represent two alternatives the people of this country may ultimately have to choose between. Legislation such as the Forand Bill, and measures aimed at increasing the wage base on which social security taxes are levied, and a host of other measures in the social welfare category could, if enacted, virtually impoverish the wage earner.

"At a time when billions are needed for national security, proposed expenditures or appropriations for an endless extension of so-called social welfare measures must be subjected to careful scrutiny.

"Everything has its price and it is the people who must pay it.

"Inevitably a choice must be made between the promised bounty of more paternalism on the part of government and the preservation of individual initiative and self-reliance which are the cornerstones of freedom. No nation can have both, for as people become more reliant on government for personal security, they necessarily cede some measure of their personal freedom.

"The drive for more government supported security as represented in the Forand Bill and other social security legislation that will come before Congress for consideration this year, should be met with enlightened opposition.

"The long cumulative effect of such measures is a danger presaging the creation of a system of socialism that could abridge personal incentive and initiative so effectively that this nation could lose the freedom it has won through self-reliance.

"Alert citizens should make their voices heard in Congress to stem the tide that drifts the nation toward ultimate socialism."

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Special Article

Medicare

OSCAR P. HAMPTON, JR., M.D., *University City*

In a letter to the Editor of the *St. Louis County Bulletin* of January 17, Oscar P. Hampton, Jr., M.D., discussed Medicare. The text of the letter is reprinted with the permission of the Editor, Joseph B. Kendis, M.D. The letter follows.

As a member of the Civilian Advisory Council to the Assistant Secretary of Defense for Health and Medical Affairs, Dr. Frank B. Berry, I have been rather well informed on many facets and problems of Medicare since it was only in the planning phase. Because apparently some confusion exists about Medicare and its mission, I thought a few simple statements of fact might be of interest to the readers of the *St. Louis County Medical Society Bulletin*. Of course, some of these probably are already well known but these are included for the sake of continuity.

The Congress of the United States many years ago legislated in effect that medical care for dependents of Service personnel was a responsibility of the government, was part of wages of military personnel, and until Medicare, was carried out by medical officers of the medical departments of the Armed Services in military hospitals and dispensaries as best they could.

Several years ago, in fact during the first years of this decade, adequate medical care for many dependents could not be made available by the military services because of a shortage of facilities and medical personnel. Efforts to render this service was a factor leading to the drafting of physicians. Even with the large number who were drafted to augment the regular medical corps, the quality of medical service in many instances was not adequate and this, of course, lead to inferior quality of service at times. All this had an adverse effect upon morale and by actual survey was shown to be a strong factor against re-enlistment or continuation in the regular Service.

During this same period there was justifiably a great deal of resistance on the part of organized medicine to the drafting of physicians and at the same time in many places considerable agitation existed for treatment of dependents in civilian institutions by private practitioners of medicine and dentistry on a fee basis.

Subsequently, Medicare was conceived and established within the Defense Department in an effort to solve the problems outlined. It is, among other things, to (1) provide adequate medical service for all dependents as required by law, (2) permit the dependents to have free choice of physician and hospital (as long as an approved hospital is selected), (3) satisfy those who had been demanding that private physicians and institutions render care to dependents and, (4) serve as a large step toward eliminating the doctor draft. Particularly it was expected to reduce the obstetric and pediatric load in military hospitals, a phase of the practice of medicine which certainly would not be thought of normally as military medicine. As a matter of fact, these services had grown to be the largest in many military hospitals.

Starting with no past experience on which to base operating procedure, those in charge of Medicare have, in my opinion, performed a splendid job. For practical purposes, all dependents may now receive hospitalized medical service whenever they need it even though they are hundreds of miles from a military hospital. They have free choice of a physician and, of great importance, the physician has free choice as to whether he accepts the patient under the program. The excess load of military hospitals in crowded areas has been reduced. It may be of interest that 40 per cent of the cases handled by private physicians under this program are obstetric and another 17 per cent are pediatric.

Of course, the completion of forms is an essential part of such a program because expenditures cannot be made unless claims for services are properly authenticated and for this, forms are necessary. I know that an effort is being made to simplify them as much as possible. Consideration of a separate form for hospitals and physicians stems from such a demand by many physicians and hospitals. Moreover, a separate form for obstetric cases would be another simplification and seems justified since 40 per cent of the patients are obstetric. In fact, most of the complaints against the program have concerned obstetric cases when services were rendered in the first one or two trimesters of pregnancy by one physician and then the delivery and postpartum care was rendered by another because the military man and his family had been transferred. I know that every effort is being made to resolve this problem equitably.

Fortunately or unfortunately (and I think unfortunately) the program was established on a fee schedule basis which is naturally undesirable to most private practitioners. Even so, I feel certain that there are few who object to the amounts shown in the fee schedule, particularly since the

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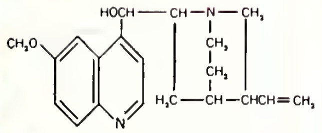

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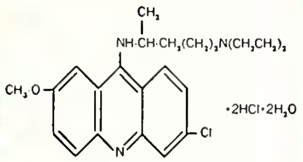

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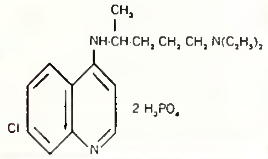

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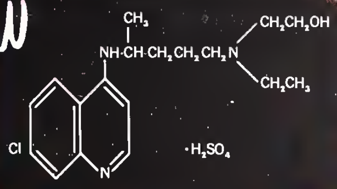

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great majority of patients seeking private medical care under this program come from families whose head (the military man) has an income of from $3,500 to $5,000 a year. Few private practitioners would charge people in these income groups fees which exceed those shown in the fee schedule.

Even though fundamentally we are opposed to fee schedules and opposed to any form of government medicine, this opposition should not cause us to decry an otherwise desirable program. Medicare was not promulgated by a group in government desiring to extend social benefits by taking from one group to give to another. It has nothing to do with any of the socialistic tendencies which have been prominent in our federal government for the last quarter of a century (to a lesser extent in the last six years). It was not sponsored as part of a bureaucracy. It is not a vote getting maneuver. In fact, considerable difficulty was experienced in getting the approval of the appropriate congressional committees. It does not extend medical care to a new group of people as the beneficiaries of Medicare were already entitled to medical service in military hospitals and dispensaries. It is merely a plan which permits the medical departments of the military services to discharge more efficiently their law-imposed obligation to render adequate medical care to dependents of military personnel without further expansion of facilities and increase in the number of medical officers.

In closing, it should be pointed out that the beneficiaries, the dependents, receive this medical care at government expense only as long as the head of the family is in the military service. It is believed that the majority of them prefer to obtain these services from a private physician of their choice particularly if he is willing to treat them under the program. Most of the dependents have the feeling that these benefits are part of the wages of the head of the family and the feeling is entirely comparable to that of the dependents of an employee of a large corporation which has provided health and hospital insurance on a payroll deduction plan. It seems to me that by rendering service to this large group of dependents of military personnel, on the same basis and with the same understanding as with any other patient, the private practitioners of medicine have an excellent opportunity to establish splendid public relations with this admittedly not too large segment of the population.

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President's Page

In this, my last President's Page, I want to thank each one for his loyal support during my short tour as President and urge that you all come to your 100th Annual Session of the Missouri State Medical Association, April 13-16, in St. Louis.

It is hard to explain just how I feel as I see my year's presidency come to an end. I purposely used the term "short tour" to describe it because that is how I found it.

It has been a busy year because I tried to visit each county and city medical society at least once. As I went around our great state, I constantly talked up our annual convention. Not just because it is our 100th, but because it promises to be our best. Actually your state medical organization is 108 years old. It seems it was impossible to plan and hold some of those meetings back during the Civil War years.

I hope that as we turn the century-mark in our annual get-togethers they continue to grow in importance for our profession for they offer a chance to meet and discuss our mutual problems, problems which seem to jump up faster than one can find answers for them. They affect not just the practice of medicine, but all the economic aspects of our professional life.

As I see it, the state organization offers us our best means of answering these problems, It gives us a cohesive voice at the Missouri Legislature and also gives us a powerful voice in Washington through the American Medical Association. The state group also can best direct our efforts with our Congressmen when they are home.

Our Scientific and Postgraduate Work committee is to be congratulated on the excellent program it has planned. It follows the basic idea of last year's session in Kansas City that proved so highly valuable.

There will be instruction courses that will appeal to every physician in the state. Other scientific sessions include a C.P.C. and panels.

Our old friends, the drug houses and other suppliers so important to our every-day work, will be with us in their exhibits. Actually they seldom receive the credit they should for supporting our conventions, both financially and by their presence.

Along with the scientific side of our convention is the political aspect. Our House of Delegates will discuss and decide our course for the coming year. I strongly urge you to participate in these sessions and the reference committee meetings that are so important to us.

As you know, all issues are open for discussion by you, both in the reference committees and on the floor of the House, whether you are a delegate or not. The only thing you cannot do is vote, just like you cannot go to Washington and vote in Congress, but with us you can say what you think.

Here are a few of the more important economic problems that must be decided by this convention:

Medicare. Our contract which must be renegotiated in few months will be reviewed.

Blue Shield. Our own program for providing medical care will be fully discussed.

Single licensure. Proposals for possible legislation will be examined and explained as to their implications.

Vendor program. The results of the membership poll will be discussed.

This may seem like a lot to do in just a little over three days, but we will do it. I just hope we do it with your help and guidance because all of the decisions are going to affect you and your patients.

Walter S Sewell M.D.

EDITORIALS

Standing Room Only

"Standing Room Only" may well be on the welcome mat at the Sheraton-Jefferson Hotel for the 100th Annual Session of the Missouri State Medical Association. Reservations for the Annual Banquet in Honor of Past Presidents commenced coming in before the reservation blanks were sent out and the Convention Bureau has been hunting housing facilities for another convention which meets at the same time.

The scientific program, the programs for special features, scientific and otherwise, the list of certified delegates and alternates, the agenda which will be followed in the House of Delegates, the scientific exhibits and the commercial exhibits are given in full in this issue of MISSOURI MEDICINE.

It has been said by a convention goer that one of three things is desired by anyone attending a convention: information, fellowship or "politicing." The session offers a good share of each of these. The scientific program is varied in subject matter and is planned so that the individual physician can obtain the greatest value from it, can get the answers to his own individual questions. Instruction courses, C.P.C. and panel presentations insure this.

Fellowship commences on the first day with the reception, buffet supper and entertainment furnished by the Woman's Auxiliary. The reception will be held in a suite in the hotel and the buffet supper and entertainment will be in the Boulevard Room, all beginning at 6:30 o'clock.

Sociability will be combined with scientific instruction at dinner meetings of the Committee on Diabetes in combination with the Missouri Diabetes Association on Monday evening, and the new Missouri State Surgical Society.

On Tuesday evening the Greene County Medical Society will be hosts at a reception preceding the Annual Banquet. The Banquet will feature an address by Gunner Gunderson, M.D., President-elect of the Association, followed by entertainment by the Greene County Medical Society.

The University of Missouri Medical Alumni Association will have a luncheon meeting Tuesday noon with Rex Davis, News Director of KMOX, speaking on "Radio and the Big News." The annual award of the association will be presented at the luncheon.

The Committee on Maternal Welfare will hold a breakfast meeting on Tuesday morning at which the annual report of the Committee on maternal deaths in the state will be presented. Case reports dealing with deaths due to hemorrhage will be given.

Possibly not strictly "politicing" but a divergence of opinion among members on several subjects will probably bring forth debate in the House of Delegates and in reference committees.

Whatever the member desires will be easily obtainable at this, the 100th Annual Session.

The St. Louis Medical Society and the St. Louis County Medical Society are cohosts for the session. The executive committee for the meeting is composed of Dr. Leonard T. Furlow, Chairman; Dr. Roy A. Walther, cochairman; Dr. Walter Baumgarten, Jr., Dr. Walter T. Gunn, Dr. Robert Mueller and Dr. Jerome Simon. The committee for the Past Presidents' Banquet is Dr. Robert Bartlett, chairman; Dr. George Wulff, cochairman; Dr. Joseph C. Peden, Jr., Edwin C. Ernst, Jr., Dr. George Thoma and Dr. Grace E. Bergner.

Thirty-five physicians are eligible for 50 Year pins this year which will be presented at the Annual Banquet.

Have you made your reservations for the Banquet, the Instruction Courses, the Special Events—and your room reservation?

News

Charles Bahn, M.D., Cape Girardeau, spoke before the local Kiwanis Club on February 7 on "Causative Factors, Diagnosis and Methods of Treatment of Ulcers."

Appearing before the Seratoma Club luncheon in St. Joseph on February 5 was **James G. Janney, Jr.**, M.D., St. Louis, who spoke on heart diseases.

Doyle C. McCraw, M.D., Bolivar, has been appointed chairman of the Southwest Regional Library Week Committee serving four counties. The program, with the theme, "Wake Up and Read!" is a citizens' campaign to reestablish reading in daily life. The reading promotion drive will culminate in the first National Library Week, March 16-22.

"Your Heart" was the subject of a talk presented on February 6 by **H. O. Loyd**, M.D., Jefferson City, before members of La Vida Chapter of the American Business Women's Association meeting in Jefferson City.

Appointed to serve on the advisory committee of the University of Missouri's medical center are Drs. **Virgil E. Jeans**, Joplin; **Duff S. Allen** and **Walter J. Siebert**, St. Louis; **Joseph L. Fisher**, St. Joseph; **John W. McHaney**, Jefferson City; **Fred B. Kyger**, Kansas City; **Walter W. Tillman, Jr.**, Springfield; **Charles A. Leech**, Columbia; **Dennis B. Elrod**, Cape Girardeau, and **Donald M. Dowell**, Chillicothe. Six other Missouri physicians and surgeons will serve automatically on the advisory committee: Drs. **Walter S. Sewell**, Springfield, and **W. F. Francka**, Hannibal, President and President-elect of the Missouri State Medical Association; **Richard R. Becker**, Kansas City, and **Peter V. Siegel**, Smithton, of the Missouri Academy of General Practice; **Frank G. Mays**, Washington, president of the Missouri University Medical School Alumni Association, and **H. M. Hardwicke**, acting director of the State Division of Health, Jefferson City.

D. R. Seabaugh, M.D., Cape Girardeau, spoke before the Eighth District Missouri Nurses Association meeting in Sikeston on February 13. Dr. Seabaugh showed films of the Newhouse artificial kidney in operation and discussed its advantages.

Carl F. Vohs, M.D., St. Louis, on February 23 was presented with an inscribed gold watch from the board of trustees of the St. Louis Blue Shield Plan. Dr. Vohs, president of the St. Louis Blue Shield Plan from its inception until his resignation in 1957, helped organize the St. Louis Blue Shield Plan as well as the St. Louis Blue Cross Plan.

The St. Louis Medical Society on February 4 sponsored a "how-to-do-it" meeting for students preparing for the Greater St. Louis Science Fair which will be held at the Washington University Field House April 12 through 18, and will be sponsored by the *Post-Dispatch* in cooperation with Washington University. The purpose of the meeting was to help students planning exhibits in the areas of medicine, biology, bacteriology and related subjects. **A. W. Neilson**, M.D., St. Louis, president of the society, welcomed the students, and demonstrations and talks were made by Drs. **John L. Horner**, **Harold A. Bulger** and William L. Macon.

Speaking before the Columbia Tuesday Club, on February 4 was **Roscoe L. Pullen**, M.D., dean of the Missouri University School of Medicine. Dr. Pullen spoke on "Progress and Development of the University Medical Center."

A first aid demonstration recently was presented before the reorganized Boy Scout Troop 6 in Columbia by **John I. Matthews**, M.D., Columbia.

Speaking before the Callaway County Mental Health Association in Fulton, on February 10, on "Mental Illnesses" were Drs. **C. Chiasson**, Columbia, and **A. K. Baur**, Fulton.

Hector W. Benoit, Jr., M.D., Kansas City, spoke before the St. Joseph Kiwanis Club luncheon on February 6 on methods of blood vessel replacement.

Recently named as the 1958 Easter Seal campaign chairman for the Carthage-Jasper area was **Jules B. Van Urk**, M.D., Carthage.

"The History of Obstetrics" was the subject of a talk given by **Francis R. Burns**, M.D., Hannibal, before the January meeting of the NEMO Society of Medical and Dental Assistants held at the Mark Twain Hotel in Hannibal.

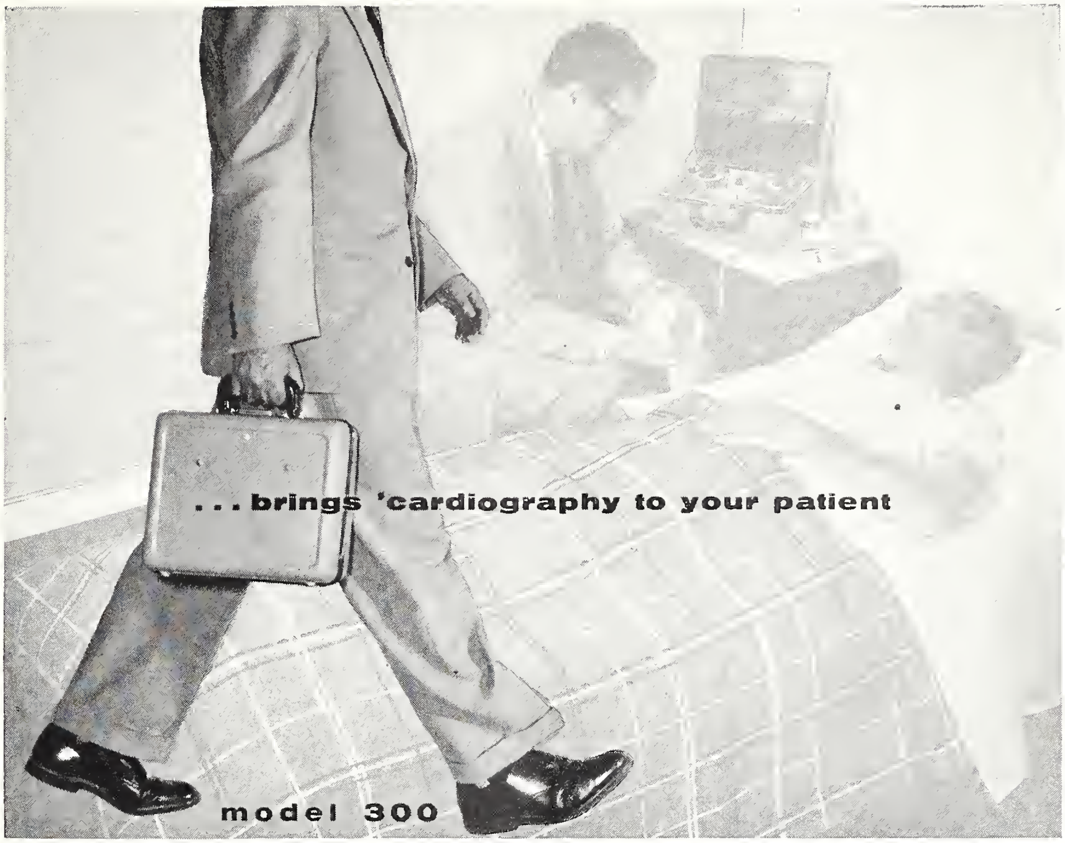
Guest speaker before the Lamar Rotary Club on February 4 was **Richard Cohle**, M.D., Carthage. Dr. Cohle, who is chairman of the Jasper County Heart Committee, spoke on the heart and gave a detailed, non-medical discussion of the various types of heart diseases and gave a brief explanation of each type.

Norman P. Knowlton, Jr., M.D., St. Louis, has been appointed medical director of the Carrie Elligson Gietner Nursing Home, 5000 South Broadway, St. Louis.

At the annual meeting of the St. Louis Blue Shield Plan **Walter S. Sewell**, M.D., Springfield, was re-elected president. Newly elected officers included Drs. **R. O. Muether**, St. Louis, first vice president; **W. F. Francka**, M.D., Hannibal, second vice president; Mr. Stephen J. Wolff, St. Louis, secretary; Mr. Richard J. Connors, St. Louis, treasurer.

Walter Baumgarten, Jr., M.D., St. Louis, recently was named part-time medical consultant for the regional United States Civil Service office in St. Louis.

"Health Is a Joint Endeavor" was the subject of a talk given by **A. L. Lowe**, M.D., Sedalia, before the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Women's Auxiliary to the Pettis County Medical Society.

Charles F. Wilson, M.D., Cape Girardeau, spoke at a meeting of St. Vincent's Home and School Association of Cape Girardeau on January 26. Dr. Wilson's subject was "The Good and the Bad in the Use of Tranquilizers."

The Sedalia Community Teachers Association on January 25 heard **D. R. Edwards**, M.D., Sedalia, speak on "The Question of Mental Health."

Alfred K. Baur, M.D., Fulton, spoke before a joint meeting of Delta Kappa Gamma and the Fulton branch, American Association of University Women on January 27.

The Springfield District Pharmaceutical Society recently set up a Poison Information and Control Center at St. John's Hospital in Springfield. A large cabinet containing information on antidotes for poisons and also a library giving ingredients of products put out under trade names will be available at the center. Drs. **Walter S. Sewell**, Springfield, and **Ronald Elkins**, Springfield, attended the pharmaceutical society meeting and received the cabinet on behalf of the community. Two registered pharmacists are on duty at the hospital and one of the Sisters of Mercy also is a registered pharmacist. This means the center will be available 24 hours a day and the information will be given without charge. Only 33 other centers of this type are operating in the United States.

Speaking before the second annual Howard Dyer Heart forum in Boonville on January 21 was **Jack M. Martt**, M.D., Columbia. The Howard Dyer Heart forum is sponsored by the Cooper County Heart Association in honor of the organization's first president.

Jules H. Kopp, M.D., St. Louis, spoke before the PTA of the Frank P. Tillman school in Kirkwood on January 21. Dr. Kopp, spoke on "Sex Education for Children."

"Your Child's Eyes" was the subject of a talk by **Tom L. Johnson**, M.D., Fulton, before the East School PTA in Fulton on January 16.

Six Kansas City physicians were recently honored for their services at child health centers at the annual dinner meeting of the Federation of Child Health Centers. The honored guests were Drs. **Charles J. Eldridge, John Aull, Mildred C. Duer, Milton Dodge** and **Marvin D. Bordy**.

Guy N. Magness, M.D., University City, was recently elected president of the St. Luke's Hospital Medical Staff Association. He succeeds **Richard Paddock**, M.D. Other officers elected were **C. Alan McAfee**, M.D., St. Louis, vice president, and **Herbert C. Wiegand**, M.D., St. Louis, was re-elected secretary-treasurer.

George M. Ragsdale, M.D., Paris, was honored recently by the Paris community for his 50 years of medical service. He designated that a fund given to him by the community will be used by the Pleasant Rest Home for much needed equipment.

Speaking before the Mental Retardation Institute held in Jefferson City in February were **Ray Hepner**, M.D., Columbia, and **H. V. Guhleman**, M.D., Jefferson City. Dr. Hepner spoke on "Facts and Fables on Causes of Mental Retardation," and Dr. Guhleman explained the inter-personal relationships of the mentally retarded. The three-day institute was presented by the Bureau of Maternal and Child Health of the Division of Health.

Former chief surgeon of Shriners' Hospital for Crippled Children, **C. H. Crego, Jr.**, M.D., St. Louis, was honored at a testimonial dinner on February 13 sponsored by the hospital's board of governors and Moolah Shrine Temple. Dr. Crego, who plans to devote his time to private practice, has been on the staff for 32 years, serving longer than any doctor in the Shrine's 17 hospitals throughout the country.

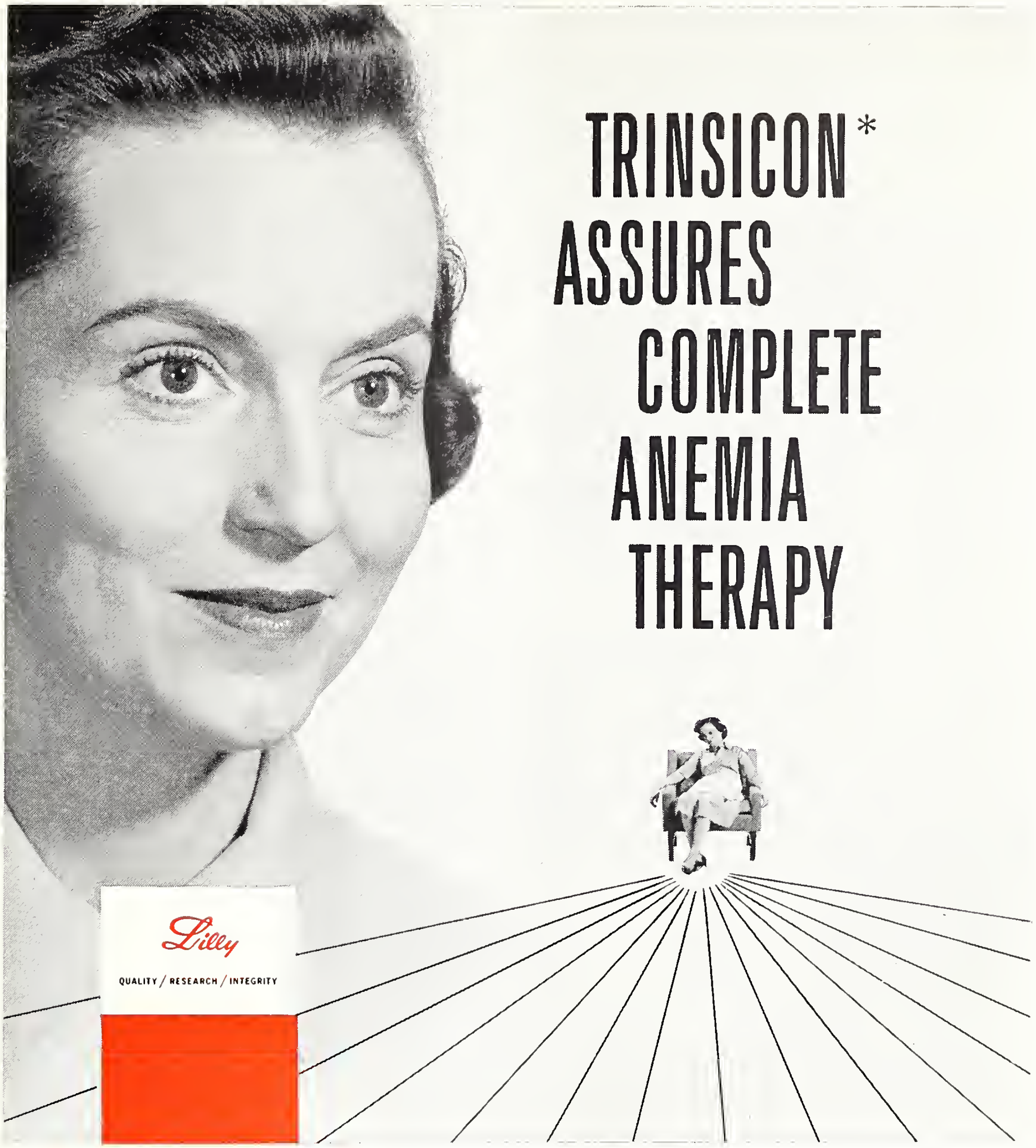
Officers recently elected in the Kansas City Dermatological Society are **Justin L. Mooney**, M.D., president; **Edwin L. Pfuetze**, M.D., vice president; **Norman D. Asel**, M.D., secretary-treasurer.

Newly elected officers of The Greater St. Louis Radiological Society are **Sam J. Merenda**, M.D., president; **Thomas F. Maher**, M.D., vice president; **Charles J. Cherre**, M.D., secretary-treasurer.

On February 24 Dr. **Robert W. Bartlett**, St. Louis, addressed the Tulsa (Oklahoma) Academy of General Practice. The title of his speech was "The Diagnosis and Management of Rectal Bleeding." On February 25 Dr. Bartlett addressed the staffs of the Levering and St. Elizabeth's Hospitals in Hannibal on "Surgical Lesions of the Colon."

A free consultation clinic for heart patients of the area has been established at St. John's and Freeman Hospitals in Joplin according to **Richard R. Cohle**, M.D., Carthage, chairman of the heart committee of the Jasper County Medical Society. Dr. Cohle emphasized that only needy cardiac patients are accepted whose physicians have referred them on a consultation basis. All laboratory and cardiograph expenses of the clinic are being borne by the Missouri Heart Association. Acting as volunteer consultants at the clinic and serving in pairs in rotating order are Drs. **John W. Koehler** and **E. H. Hamilton**, Joplin; Drs. **Nelson Butterworth** and **Harry K. Wieman**, Joplin; Drs. **C. B. Schoeberl** and **M. H. Black**, Joplin; and Drs. **E. J. McIntire** and **Richard R. Cohle**, Carthage.

Guest speaker before the Carthage School Health Council on February 18 was **Rosellen Cohnberg**, M.D., Monett. Dr. Cohnberg spoke on "Mental Health and Juvenile Delinquency."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Musings of the Field Secretary

One of Missouri's pioneers in the field of voluntary health insurance was given special recognition at the annual meeting of Missouri Medical Service, Sunday, February 23, at the Coronado Hotel in St. Louis.

Dr. Vohs is presented watch by Dr. Mueller.

Dr. Carl F. Vohs of St. Louis served as President of Missouri Medical Service from its beginning in April of 1944 through February of 1957. He has been a member of the Board of Trustees during that period and still serves in that capacity.

At a propitious time during the meeting, February 23, Dr. Robert Mueller, Chairman of the Medical Review Committee, presented Dr. Vohs with a beautiful wrist watch. In his remarks Dr. Mueller reviewed the long history of devoted service given by Dr. Vohs to the Blue Cross-Blue Shield development in the nation and particularly in the State of Missouri. He told how Dr. Vohs had been criticized on numerous occasions in his efforts to promote and expand Blue Shield, especially back in the late 30's and early 40's. Dr. Mueller pointed out that the watch, given to Dr. Vohs, by Missouri Medical Service was a mere token of appreciation to this man who has given so much of himself to this organization and to the service of others.

On Sunday, June 15, there will be a full-day scientific symposium presented at the Kentwood Arms Hotel, Springfield. An outstanding program is being arranged through a cooperative endeavor of the Greene County Medical Society, the Southwest Missouri Chapter of the Missouri Academy of General Practice and Lederle Laboratories. All members of the State Medical Association are welcome to attend any or all of this affair, free—even for the luncheon and evening social hour. The program will begin at 10:00 a.m. and conclude at 7:00 p.m., at the close of the social hour. Program details will be published later, when available. A special program for doctors' wives is being arranged in conjunction with the day's scientific sessions.

On May 14 and 15, plans are under way for two days of postgraduate offerings to Missouri physicians at the University of Missouri Medical School. The Committee on Postgraduate Medical Education of the Medical School in cooperation with the Missouri Academy of General Practice, the Postgraduate Committee of the Missouri State Medical Association and the Missouri Heart Association, hopes to develop a program, some of which will appeal to general practitioners and specialists alike.

The annual assembly of the Missouri Academy of General Practice is to be held in St. Louis this year. It is scheduled for the Chase Hotel on Saturday and Sunday, October 18 and 19. Meeting on a weekend will be an interesting departure from the usual midweek annual assembly.

The President of the Missouri State Medical Association, Dr. Walter Sewell, says that he is going to look for many faces at the MSMA Annual Meeting in St. Louis, April 13-16, that he has seen at the many county medical society meetings which he has attended during his tenure of office. I can personally testify that he has been riding the county medical society meeting circuit.

DEATHS

Blackmore, Thomas A., M.D., Windsor, a graduate of Missouri Medical College, St. Louis, 1898; member Henry County Medical Society; aged 85; died January 26.

Brown, John E., M.D., Perry, a graduate of the Louisville College of Medicine, 1895; honor member Marion-Ralls-Shelby Counties Medical Society; aged 91; died January 19.

Hicks, Edward A., M.D., Troy, a graduate of the University of Louisville School of Medicine, 1904; honor member Lincoln-St. Charles Counties Medical Society; aged 86; died February 8.

Leonard, Ward H., M.D., Kansas City, a graduate of the University of Pennsylvania School of Medicine, 1897; honor member Jackson County Medical Society; aged 86; died February 3.

Schuck, Philip, M.D., St. Louis, a graduate of Marion Sims School of Medicine, 1897; honor member St. Louis Medical Society; aged 82; died February 15.

Woolsey, Doris S., M.D., St. Louis, a graduate of Duke University School of Medicine, 1939; member St. Louis Medical Society; aged 44; died February 13.

NEW MEMBERS

Appleford, George B., M.D., 215 West Pershing Road, Kansas City. Jackson County Medical Society.

Bowles, Richard P., M.D., 112 North Water, Liberty. Clay County Medical Society.

Bruce, Paul C., M.D., Clay County Health Department, Liberty. Clay County Medical Society.

Gaunt, William D., M.D., University of Missouri School of Medicine, Columbia. Boone County Medical Society.

Keown, Kenneth K., M.D., University of Missouri School of Medicine, Columbia. Boone County Medical Society.

Lentz, Clark H., M.D., 215 West Pershing Road, Kansas City. Jackson County Medical Society.

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Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met February 13, at the Strand Hotel, Chillicothe. Including members, Auxiliary members and guests about 50 were present. After dinner the guests were introduced and the Auxiliary retired to their meeting.

In the absence of President Dr. Chas. M. Grace, First Vice-President Dr. E. W. Allen presided.

The scientific program was presented by Dr. Hector W. Benoit, Jr., thoracic and cardiovascular surgeon, Kansas City, who discussed "Surgical Aspects of Diseases of the Aorta." This interesting and scientific presentation was followed by questions and discussion.

Minutes of last meeting were read and approved.

E. A. DUFFY, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The regular monthly meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital in Moberly on Thursday night, February 13.

Following dinner Dr. Stanley Szymanski, radiologist at the hospital, spoke on "The Practical Use of Radioactive Isotopes in Modern Medical Practice."

Nineteen physicians attended the meeting.

ROBERT H. YOUNG, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society held its regular January meeting at the Jefferson Memorial Hospital on January 28. The meeting was called to order at 8:15 p.m. by President Dr. Karl V. McKinstry. Other members present were: Drs. Allbee, Bolgar, Harold Donnell, R. H. Donnell, Carl E. Rice, Charles E. Fallet, J. F. Rutledge, and a guest, Dr. Jerome Bredall, Perryville.

The scientific program was presented by Dr. Harold Roberts, assistant professor of clinical medicine at Washington University Medical School, who talked on "Diagnosis and Treatment of Diabetes." The talk was well received and it is planned to have him back in the near future to discuss the complications of diabetes.

Following this, the business session was held. The following officers were re-elected for 1958: President, Dr. Karl V. McKinstry; vice-president, Dr. Thomas Donnell; secretary-treasurer, Dr. John F. Rutledge, delegate, Dr. R. H. Donnell; alternate, Dr. Charles E. Fallet.

The Society went on record as unanimously opposing the Forand Bill and similar legislation. The secretary was instructed to write Congressman A. S. J. Carnahan and Senators Hennings and Symington.

It has been called to the attention of the society that some of the physicians of Ste. Genevieve County wish to affiliate with our medical society. Some of them belong to Perry County and some to the Mineral Area Group. The secretary was instructed to contact the state office as to the proper procedure in this matter.

Following our usual delicious refreshments, the meeting adjourned.

JOHN F. RUTLEDGE, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

The Lincoln-St. Charles County Medical Society held a dinner meeting at Covilli's Supper Club in St. Charles on Thursday evening, February 20. Following a short social hour, and dinner, those present were privileged to hear a discussion on "The Recognition and Treatment of Disorders of Adrenal Functions Including the Use of Newer Synthetic Adrenal Steroid Hormones" by Marvin Rosecan, M.D., St. Louis.

This interesting talk generated a good discussion by the group.

PAUL ROTHER, M.D., *Secretary*

St. Louis County Medical Society

The St. Louis County Medical Society met in the auditorium of the County Health Center, Clayton, Wednesday night, February 12.

The society was honored at this meeting by a visit from the State Association President, Dr. Walter S. Sewell, Springfield. He spoke on the subject "Your State Medical Association, Its Program and Problems." In his discussion Dr. Sewell stressed specific problems which face medicine today, particularly on the socio-economic front. He pointed out that there was no easy

The audience was attentive.

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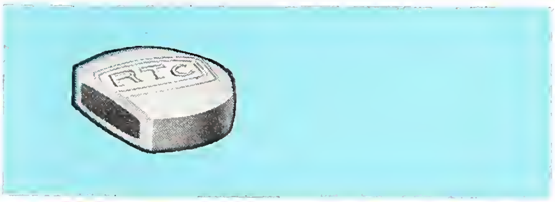

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solution to these problems because of the many ramifications. He stressed the great importance of individual physicians informing themselves fully regarding these problems and making their wishes known to those representing them in medical organizations and in legislative circles. He urged attendance of all members of the State Medical Association at the Annual Session, April 13 to 16 at the Sheraton-Jefferson Hotel in St. Louis.

Dr. Diehr and Dr. Sewell continue the discussion after the meeting adjourned.

Robert A. Mayer, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, February 17, at 7:00 p.m., at the Pilot Lounge, Air Park Motel, Mexico.

The meeting was called to order by the President, Dr. Leonard L. Davis.

The guest speaker for the evening, Dr. Read Boles, St. Louis, was introduced by Dr. Davis. Dr. Boles spoke on "Common Pediatric Problems," which was enlightening and interesting.

The following were present: Mr. William Boles, St. Louis (attorney); Dr. Frank Mickevicius, State Hospital, Fulton; Dr. Thomas L. Dwyer, Dr. Glen Kallenbach, Dr. Leonard L. Davis, Dr. David Rouse, Dr. Harry F. O'Brien, Dr. Ernest Gantt, Dr. Lawrence K. Epple, Dr. Kathryn C. Epple, and Dr. Harold D. Lankford.

There being no further business, the meeting was adjourned.

Harold D. Lankford, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

The West Central Missouri Medical Society met for dinner at the Inn Hotel, Butler, on Thursday evening, February 13. The dinner was also attended by the doctors' wives. A short social hour was held prior to the dinner.

A scientific program for the evening under the auspices of the Missouri Academy of General Practice was given by Harry B. Overesch, M.D., Kansas City, who spoke on "Foot Problems of Infants and Children." This was an interesting and informative discussion.

J. C. Mocdy, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society held a dinner meeting at the Cozy Cafe, Aurora, on Tuesday, February 11. The scientific program was presented by Dr. David D. Thomasson, Springfield. His subject was "Meningitis and Encephalitis in Children." Thirty members, guests and Auxiliary members were present.

At the business session the Society voted to be known as unanimously opposed to the Forand Bill. Letters to that effect are to be sent to the Council of the MSMA and our Representative and Senator to Congress.

The next meeting is to be in Mount Vernon, Missouri, on March 11.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

The South Central Counties Medical Society met for dinner February 26 at Tiny's Steak House in Cabool with the following members and visitors present: Dr. and Mrs. C. T. Callihan, Dr. and Mrs. M. L. Fowler, Dr. and Mrs. Rollin H. Smith and Dr. Jack M. Wiles, West Plains; Dr. and Mrs. R. W. Denney, Dr. S. W. Connor and Dr. A. C. Ames, Mountain Grove; Dr. and Mrs. Garrett Hogg, Jr., and Dr. and Mrs. J. L. Spears, Cabool; Dr. H. W. Miller, Willow Springs; Dr. J. R. Tarr, Houston and Mr. and Mrs. Del Caywood and Dr. and Mrs. Wm. Wood, Springfield.

After dinner the ladies went home with Mrs. Hogg for the evening and the meeting came to order and Mr. Caywood made an interesting and profitable talk on the business side of the practice of medicine.

The minutes of the last meeting were read and approved.

Dr. Fowler appointed Dr. Miller as chairman of a committee opposing pending legislation regarding the Forand Bill. Dr. Miller agreed to formulate a letter to representatives on behalf of the Society opinion and each member was urged as an individual to contact his representative opposing the Forand Bill.

Following one or two additional business matters the society adjourned to meet in West Plains, March 26.

A. C. Ames, *Secretary*

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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Mid-Missouri Medical Society

U. J. Busiek, M.D., Springfield, spoke at a dinner meeting of the Mid-Missouri Medical Society, Thursday evening, February 27. He discussed "Pediatric Problems of Special Interest to General Practitioners."

The meeting was held at Nelsons Cafe in Lebanon. It offered an added attraction by having the wives of the doctors present.

M. K. Underwood, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

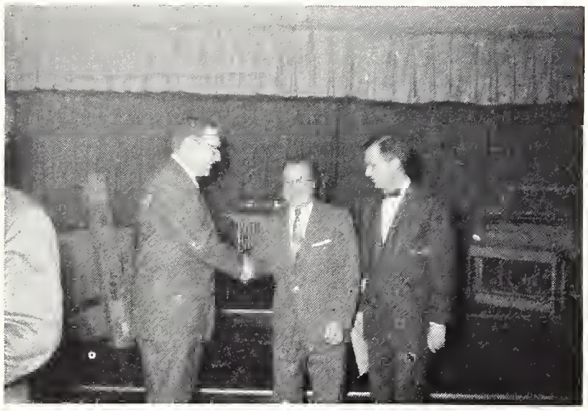
BEN M. BULL, IRONTON, COUNCILOR

Cape Girardeau County Medical Society

A dinner meeting of the Cape Girardeau County Medical Society was held Monday night, February 3, at the Purple Crackle, just across the Cape Bridge in Illinois.

Dr. Sewell was the speaker.

The festivities for the evening began with the social hour and was followed by the usual choice steak dinner and then the program.



Drs. Rapp and Ashley talk with the speaker after the meeting.

The society was privileged to have Dr. Walter S. Sewell, President of the State Medical Association, as the guest speaker. Dr. Sewell spoke on a number of problems facing our profession on the socio-economic and political fronts. The information that he presented gives all much food for thought. Mr. O'Brien, Executive Secretary, of the State Medical Association, also took part in the discussion which followed Dr. Sewell's formal presentation.

We understand that it is Dr. Sewell's aim during his term of office, to visit all of the county societies in the state and to discuss with them some of the problems that medicine of today is facing.

His visit to our society was appreciated.

Gerald M. Hoxworth, M.D., *Secretary*

Pemiscot County Medical Society

A meeting was held February 20 at the Pemiscot County Memorial Hospital and included dinner. The meeting was called to order by Dr. Joseph Poff. Last month's minutes were read and approved. Members present were: Drs. Aquino, Bryant, Cain, Caldwell, Chapman, Cook, G. Duckworth, J. Duckworth, Gubin, Lamb, McCoy, Morris, Joseph Poff, Smith, Acuff, Nathan Poff and Grable. Visitors present were Drs. Vonnie Hall and Deere, both from Memphis.

Dr. Vonnie Hall, who is a dermatologist, discussed the problems in diagnosis and treatment of contact dermatitis. Dr. Deere, an internist, discussed some of the more outstanding papers in recent literature.

Unfinished business: Discussion was held on adoption of a new constitution and by-laws, which was discussed at the last Society meeting. After some discussion, it was suggested that a committee be appointed called the Adoption Committee and this committee was to study the new constitution and by-laws. However, after further discussion, it was decided to go ahead and approve the proposed constitution and by-laws pending certain changes.

A motion was made by Dr. Lamb and seconded by Dr. McCoy that no admission fee be required for a new member of the Society. This was passed in the usual manner. A motion was made by Dr. Caldwell and seconded by Dr. Gordon Duckworth that the annual dues be made $10.00 per year, instead of $2.00 per year, provided this amount was sufficient for the Society treasury funds. It was stipulated that, if necessary, a new assessment would be made during the year if the Society funds reached a low point. This motion was carried.

A motion was made by Dr. Smith and seconded by Dr. O. W. Cook that another assessment for the year of 1958 be added to the present assessment so that the total amount would be $10.00 for 1958. This was carried.

A motion was made by Dr. Lamb and seconded by Dr. Gordon Duckworth that two thirds membership constitute a quorum as a legally acting body for purposes of the Society meetings. This was passed in the usual fashion.

A motion was made by Dr. Smith and seconded by

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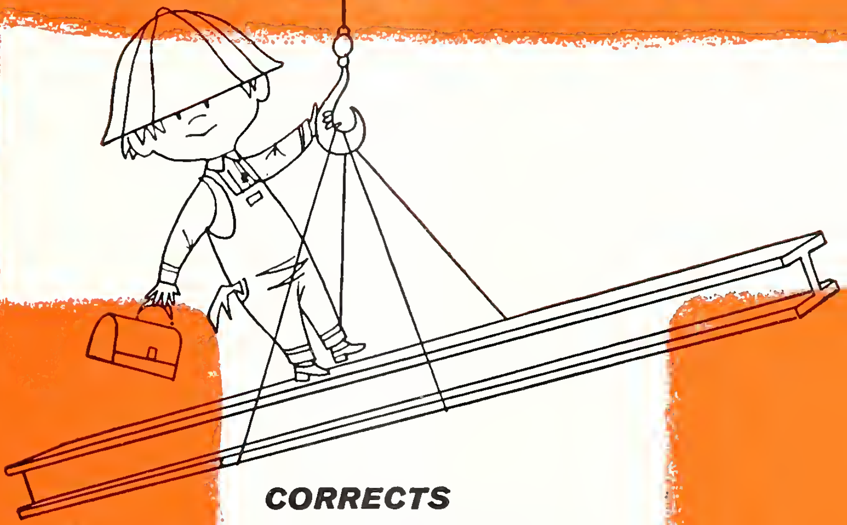

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FORMULA: Each teaspoonful (5 cc.) contains:

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Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B$_{12}$ Crystalline	25 mcgm.
Thiamine Mononitrate (B$_1$)	10 mg.
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Dr. McCoy that the now amended proposed form of the new constitution and by-laws be approved. This was voted upon and carried.

Concluding that business, the next item was a discussion of the problem of absenteeism and it was decided that this would be held for further discussion next month.

Applications were received for three new members of the Society, which had already been approved by the board of censors. These members were: Dr. James Grable, Dr. Nathan Poff and Dr. William J. Acuff. A motion was made by Dr. G. Duckworth and seconded by Dr. Caldwell that these three members be accepted in the Society pending payment of dues in full membership. This was passed in the usual fashion.

Dr. Poff read a letter from the Missouri State Medical Association on the proposed Forand Bill concerning medical care for the age group receiving Social Security payments. A motion was made by Dr. Cook and seconded by Dr. Caldwell that the Secretary-Treasurer of the Society notify Representative Paul Jones that the Society was on record as opposing the Forand Bill. This motion was carried in the usual fashion.

Having no further business at hand, a motion was made, seconded and carried that the Society adjourn.

John K. Duckworth, M.D., *Secretary*

APROPOS BLUE SHIELD

The February issue of the Pettis County Medical Society *Bulletin* carried a discussion of Blue Shield as a "third party" and as insurance business. The article is reprinted with permission of the *Bulletin.*

"Blue Shield Plans exist only to help the medical profession facilitate the provision of its services to the people. . . . Blue Shield is an organization of the profession itself, and not a third party between doctor and patient."

So declared the Blue Shield Commission in a recent policy statement. The Commission is the elected board of directors of the national association, "Blue Shield Medical Care Plans," whose members are the 70-odd medical society-sponsored, nonprofit Blue Shield Plans. A preponderant majority of the Commissioners are doctors of medicine.

The medical profession, through its own instrument, Blue Shield, pioneered the great uncharted realm of medical prepayment at a time when commercial insurance companies declared it was actuarially impossible, and when the bureaucrats in Washington asserted that only big government could do the job.

What is a "third party between doctor and patient"? In simplest terms, a "third party" must be some person or agency over whom neither the first party—the patient—nor the second party—the doctor—has any

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direct control; someone independent of both doctor and patient.

The first requirement of a medical prepayment plan that wants to call itself Blue Shield is that it be approved by the county or state society in the area that it serves. The second requirement is that all medical policies and operations be under medical control; and the third, that it earn the voluntary participation of at least a majority of the doctors in its territory.

Blue Shield is not a "third party." In truth, Blue Shield has proved that doctors and patients, working together, can solve the problems of medical economics without needing any third party to come between them.

IS MEDICINE IN THE "INSURANCE BUSINESS"?

More than seventy medical society-sponsored Blue Shield Plans are serving nearly one-fourth of the people of the United States, and underwriting about 40 per cent of all the basic surgical insurance and about 50 per cent of all the basic medical (non-surgical) insurance now in force. The rest is underwritten by more than 800 private insurance companies and independent local plans.

Is medicine—by its sponsorship and control of Blue Shield—in the "Insurance business"? Let's remember, first, that the medical profession organized these Plans at a time when the insurance industry said it couldn't be done. And they were right. Medical care prepayment couldn't be organized and offered by an insurance company. It had to be done by medicine itself.

Blue Shield succeeded because America's doctors were behind it. They accepted less than normal schedules for their services; they agreed to accept (and in many areas they have actually accepted) pro-rated portions of those fees when the local Plan has been unable to pay the full schedule. Medicine's leaders have accepted the responsibility for guiding and directing their local Blue Shield Plans—a job that accounts for an incalculable number of unremunerated hours on the part of hundreds of the country's busiest physicians.

Have the members of our profession accepted these duties and responsibilities in order to put medicine "in the insurance business"? Certainly not! Medicine is in the business of providing medical care—nothing else. The profession has always been concerned with the ways and means by which patients pay for medical care and provide for future medical needs, and the profession quite naturally wants to control the basic economy of medical practice.

Medicine is *not* in the insurance business. But, through Blue Shield, the profession *is* in the business of helping patients pay for their doctors' services. And in the final analysis, the patient alone profits through participation in Blue Shield.

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MISSOURI STATE MEDICAL ASSOCIATION

100th Annual Session
Sheraton-Jefferson Hotel, St. Louis
April 13-16, 1958

TIME AND PLACE OF MEETINGS

Sunday, April 13

12:30 p.m. Registration for House of Delegates, Mezzanine Floor.
1:30 p.m. House of Delegates, Crystal Room.
3:30 p.m. Reference Committee Meetings, Crystal Room, Rooms 2, 3, 6, 8.
7:00 p.m. Buffet Supper and Entertainment, Woman's Auxiliary, Boulevard Room.

Monday, April 14

8:00 a.m. Registration, Mezzanine Floor.
9:00 a.m. Motion Pictures, Crystal Room.
10:00 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
12:30 p.m. Intermission to View Exhibits and Lunch.
2:00 p.m. Scientific Session, Crystal Room.
3:00 p.m. Intermission to View Exhibits.
3:30 p.m. Scientific Session, Crystal Room.
4:30 p.m. House of Delegates, Crystal Room.
5:30 p.m. Reference Committee Meetings, Crystal Room and Rooms 2, 3, 6.
6:30 p.m. Dinner Meeting of the Committee on Diabetes and Missouri Diabetes Association, Room 3.
7:00 p.m. Dinner Meeting of the Missouri State Surgical Society, University Club.

Tuesday, April 15

8:00 a.m. Registration, Mezzanine Floor.
8:00 a.m. Breakfast Meeting, Committee on Maternal Welfare, North Room.
8:30 a.m. Motion Picture, Crystal Room.
10:00 a.m. Scientific Session, Crystal Room and 2nd Floor.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Sessions, Crystal Room and 2nd Floor.
12:30 p.m. Intermission to View Exhibits and Lunch.
12:30 p.m. University of Missouri Medical Alumni Luncheon, Gold Room. Rex Davis, St. Louis, Director KMOX, Speaker.
2:00 p.m. Scientific Session, Crystal Room.
3:00 p.m. Intermission to View Exhibits.
3:30 p.m. Scientific Session, Crystal Room.
6:30 p.m. Reception, Greene County Medical Society, Host, Crystal Room.
7:30 p.m. Annual Banquet, Boulevard Room.

Wednesday, April 16

8:00 a.m. Registration, Mezzanine Floor.
8:30 a.m. Motion Picture, Crystal Room.
9:30 a.m. Scientific Session, Crystal Room and Gold Room.
11:00 a.m. Intermission to View Exhibits.
11:30 a.m. Scientific Session, Crystal Room.
12:30 p.m. Intermission to View Exhibits and Lunch.
1:30 p.m. House of Delegates, Crystal Room.

INSTRUCTION COURSES

Monday, April 14, 1958

9:00 a.m. Motion Pictures: Hypothyroidism. Time and Two Women. Crystal Room.

10:00 a.m. Instruction Courses:

Diagnosis and Treatment of Vaginal Discharge, M. D. Bonebrake, M.D., Springfield. Room 8.

Many gynecologic illnesses first manifest their presence by the onset of vaginal discharge. A history of purulent or blood tinged discharge should immediately alert the examining physician to the possibility of malignancy of the female generative tract. Careful questioning often will give valuable information concerning preceding trauma, exposure to infection, metabolic disease and duration of disease. Complete physical examination and utilization of all necessary diagnostic aids will enable patients to receive treatment as early as possible. Immediate diagnosis and the application of adequate therapy early in pelvic disease will increase the cure rate and at the same time decrease the extension of disease and complications.

The Dizzy Patient, Walter L. Moore, M.D., Clayton. Crystal Room.

There are three systems that may be involved if dizziness is present: the labyrinthine (ear), the ocular (eye) and the proprioceptive (muscle-joint). Of these three, the ear is the most important for it is the true organ of balance. With disturbance of any of these systems, a sense of turning is present only when the ear or its intracranial connections are involved. When the disturbance is present in the ears, one speaks of the vertigo as being peripheral in origin. If due to disease within the central nervous system, or to its connections, one says the vertigo is of central origin.

The labyrinth is divided into two parts: (1) the semicircular canals that control kinetic functions, and (2) the saccule and utricle which control static functions. Disturbance in the semicircular canals causes a sensation of turning, whereas a disturbance in the saccule and utricle causes a sensation of change of position in space.

Vertigo may be a symptom of disease elsewhere in the body. Ocular vertigo may be associated with imbalance of the ocular muscles, extraocular palsies and errors of refraction.

Systemic disease, such as arteriosclerosis, hypertension, sudden drop in blood pressure, cardiac abnormalities, anemia, allergy, febrile states, metabolic disorders, focal infections, and intracranial conditions such as brain and brain-stem neoplasm, or abscesses, intracranial hypertension, multiple sclerosis, platybasia, and intracranial aneurysms cause vertigo and other symptoms of labyrinthine irritation. Important, also, are both endogenous and exogenous toxins and blood dyscrasias.

Dizziness is a common symptom of anxiety state and hysteria, as well as a symptom of Meniere's syndrome and variant forms of epilepsy.

Brief description of clinical testing of the ear, both its auditory and vestibular function, will be outlined, and diagnostic aids will be discussed summarily with primary emphasis on the involved clinical principles, and some therapeutic problems will be outlined.

Accompanying charts and diagrams for emphasis and for ease of clarification will be presented along with the discussion.

The Traumatic Abdomen, Heinz Haffner, M.D., St. Louis. Room 9.

Because of the increasing number and severity of accidents, the incidence of abdominal injuries will no doubt increase. Inasmuch as the fatality is directly proportional to the length of time elapsing from the time of the injury until surgical treatment, it behooves all surgeons who are called upon to handle various injuries to be well versed in the principles involved, which will be discussed. These principles will be discussed on the basis of (1) resuscitation, (2) diagnosis and surgical treatment with special emphasis on management of laceration of the spleen, liver, duodenum and pancreas; small intestine, large intestine and bladder.

Head Injuries at Birth, James P. King, M.D., St. Louis. Room 7.

Peripheral Vascular Disease, Robert A. Jordan, M.D., Kansas City, Kansas. Room 2.

The discussion will be limited to a consideration of the organic occlusive arterial diseases. The technic of physical diagnosis will be emphasized as it applies to these diseases; however, there will also be some discussion of more elaborate diagnostic methods. Medical and surgical management will be discussed.

The Burned Hand, F. X. Paletta, M.D., St. Louis. Room 3.

Burn can be a crippling disease in the hand. Early skin grafting on deep burns of the hand is more important. Constant attention directed to early motion in the fingers will minimize stiffening. It should always be kept in mind that the position of function in hand dressings is essential. Wherever possible, early debridement followed by skin grafting prevents the occurrence of contractures. Skin coverage of exposed tendons and joints is mandatory, otherwise necrosis and infection will complicate the management. It is not advisable to wait long to remove necrotic tissue from the burned hand; one must be aggressive. Daily immersion in a water bath after the first week of injury will prevent fibrinous exudate in the interphalangeal joints from forming permanent scar tissue.

11:00 a.m. Intermission to visit exhibits.

11:30 a.m. Instruction Courses: Repeated from 10:00 a.m.

12:30 p.m. Intermission to view exhibits and lunch.

GENERAL MEETING

Monday, April 14, 1958, Crystal Room

W. S. SEWELL, M.D., Springfield, Presiding

2:00 p.m. Intestinal Obstruction: Early Diagnosis and Management, Rudolph J. Noer, M.D., Louisville, Ky.

Intestinal obstruction has perhaps been the subject of more investigative effort during the last fifty years than any other subject in the field of medicine, with the possible exception of cancer. From the laboratory have come better understanding of the physiologic and pathologic consequences of severe distention, recognition of the need of the patient with obstruction for fluid and electrolyte replacement, and demonstration, particularly in strangulation, of the serious consequences of permeation of the devitalized intestinal wall by some sort of toxic substance, be it bacterial or chemical in nature.

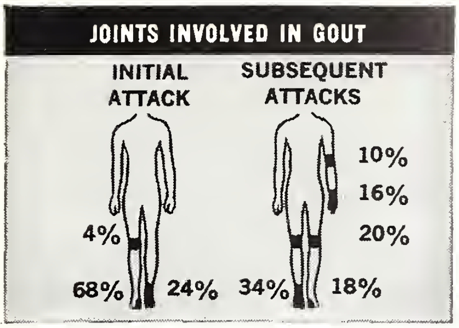
Clinical progress has been related to more intelligent application of the principles referred to, and to the advent of nonoperative decompressive measures for use in certain well selected cases. Judicious combination of therapeutic measures now available has brought the mortality rates generally reported down from the 50 or 60 per cent level at the turn of the century to a figure now below 10 per cent. Early diagnosis should do much to better the situation by permitting physiologic derangement. In patients in whom strangulation is suspected, and in those who have not yet developed sufficient distention to require nonoperative decompression, immediate exploratory operation is in order. If the patient has severe distention but no indication of strangulation, preoperative gastrointestinal suction drainage will restore the patient to good physiologic status and permit elective removal of the obstructing agent. Suction drainage is by far the most effective means for treating adynamic ileus, though the distention can actually best be prevented by gastric suction following operation and severe trauma. Colonic distention can only be treated effectively by proximal diverting colostomy.

2:30 p.m. Dependents' Medical Care Program, Paul I. Robinson, Major General, M.C., Washington, D. C.

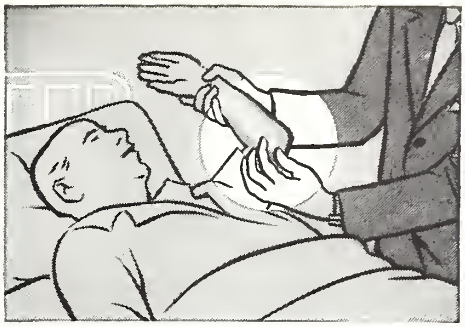
Presentation will include the following:

1. Factual data concerning operation of the Dependents' Medical Program during the first year.
2. Outline of special problems involving physicians and service rendered by them.
3. Benefits and their value to Uniformed Service personnel.

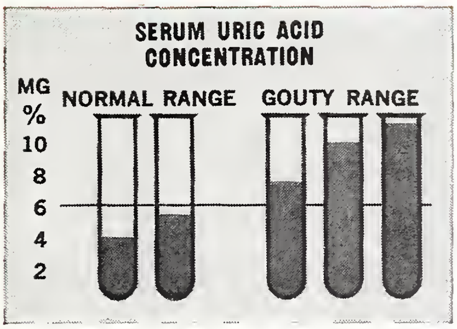
3:00 p.m. Intermission to view exhibits.



1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



3. Elevated serum uric acid levels.

4. Colchicine test: full dose (0.5 mg.) every 1 to 2 hours until pain is relieved or nausea, vomiting or diarrhea occur. The test requires usually 8 to 16 doses. Pain relief is highly indicative of gout.

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CLINICAL PATHOLOGIC CONFERENCE

Monday, April 14, 1958, Crystal Room

PAUL R. WHITENER, M.D., Florissant, Presiding

3:30 p.m. Clinical Pathologic Conference.
Moderator: Joseph E. Flynn, M.D., Columbia.
Panelists: John J. Hammond. M.D., St. Louis.
J. M. Martt, M.D., Columbia.
Armand E. Brodeur, M.D., St. Louis.

Clinical Protocol

Admitted: Sept. 20, 1957; *Expired:* Oct. 12, 1957; *Autopsy No.:* A10216; *Age:* 15 years; *Sex:* Male.

Present and Past Illnesses: This 15-year-old white boy was referred to the hospital on Sept. 20, 1957, for treatment of his third major episode of cardiac difficulty since the age of 7.

The patient was the oldest of six children of a tenant farmer. The family lived in a four room house without central heat or plumbing. The family acknowledged that the medical supervision of the boy had been poor due to their economic status. The parents and the siblings were said to be in good health except for some sore throats and fever in the two youngest siblings. The patient was born after an uncomplicated pregnancy and no difficulty was experienced at delivery or during the neonatal period. His general early development and health were good. He had received no immunizations.

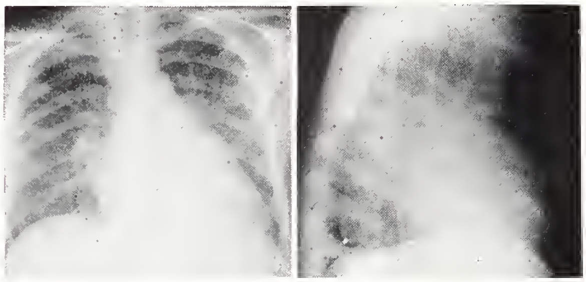

Fig. 1. PA and lateral films of the chest (Oct. 1, 1957) again show evidence of moderate generalized cardiac enlargement. Comparison with a previous examination on Sept. 11 shows greater prominence of the left atrium presenting on the cardiac border. The lungs appear slightly congested.
Impression: Moderate cardiac enlargement with greater prominence of the left atrium than that noted on Sept. 11. Mild pulmonary congestion.

At the age of 7, following measles, he developed marked pallor, fever, and swelling, pain and exquisite tenderness in the knees and ankles. The diagnosis of acute rheumatic fever was made by the family physician who said that the boy had cardiac involvement. He was treated with sodium salicylate for a time and he remained in bed for seven months. During the next three years he had intermittent mild joint pain and fever and he tired easily. At the age of 10 years he was hospitalized for five weeks because of painful swollen joints in the upper and lower extremities. He was treated with sodium salicylate and penicillin. He was said to have had a large heart and a murmur at that time. He has continued to have mild intermittent joint swelling and pain. In May of 1957 he weighed 130 pounds and seemed to be feeling fairly well. He participated in sports to a limited degree and attended school regularly.

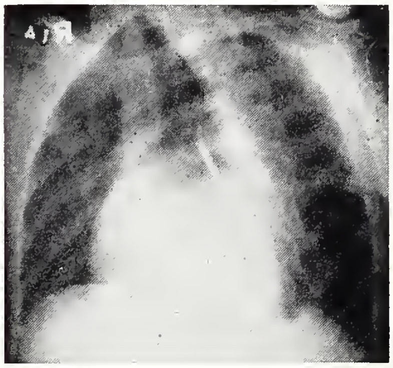

Fig. 2. Oblique projections of the chest (Sept. 11) show evidence of moderate generalized cardiac enlargement apparently involving all chambers. There is no evidence of intracardiac calcification.

In July he had pain in the wrists, knees and ankles. He began to lose weight. He developed a transitory erythematous rash on the hands, legs and feet. From that time until admission he was in bed a good part of the time, and was treated intermittently with sodium salicylate and penicillin. His heart beat was forceful and obvious to him and his parents, as were the tachycardia and arrhythmia. Fever had not been noted recently. A few weeks before admission he had a group of raised red spots on one of his fingers. The spots faded in a few days.

Physical Examination: Height was 65 inches, weight 101 pounds, temperature 98 F., pulse 120 per minute, blood pressure 145/50, 20 mm. Hg.

The patient was a thin, pale, chronically ill appearing boy who was apprehensive but cooperative. The ear, nose and throat examination was normal except for some inflammation of the tonsils. The teeth were in good repair. Respirations were unlabored. There were no abnormal findings relating to the lungs. The heart was obviously enlarged with a diffuse precordial impulse extending to the anterior axillary line. There was a grade IV diastolic murmur heard best at the left of the sternum and also heard in the aortic area where a systolic murmur was audible also. The second heart sound in the aortic area was not heard. There was a grade IV apical systolic murmur and a short diastolic murmur at the apex. The carotid arteries visibly pulsated. The pulsations of the major peripheral arteries were marked. The liver was palpated at about 2 cm. below the costal margin, and was not strikingly tender. The spleen was not palpable. There was no edema. The venous pressure measured externally by using the jugular veins (Lewis method) was 4 cm. There were no nodules, no petechiae, no joint tenderness and no joint swelling. The neurologic examination was normal except for minimal jerking movements of the outstretched fingers.

Laboratory: The initial blood values were: hemoglobin 9.1 grams per cent; hematocrit 30 per cent; white blood count 7,600 with 67 per cent neutrophils, 5 per cent metamyelocytes, 22 per cent lymphocytes, 3 per cent monocytes and 2 per cent eosinophils. The sedimentation rate was 61 mm. in one hour (Wintrobe); NPN 40 mg. per cent; total plasma protein 7.5 gm. per cent; antistreptolysin titer 625 Todd units. Two weeks later the antistreptolysin titer was 333 Todd units. C-reactive protein was positive; LE cell preparation negative. On admission the urine contained a trace of albumin and 3 to 4 red blood cells per high power field. Otherwise the urine was normal. There were no significant deviations from any of the reported laboratory findings which were repeated.

A blood culture obtained on admission grew alpha hemolytic streptococci which were sensitive to penicillin. Repeat blood cultures, including arterial, were sterile.

Chest x-rays revealed moderate generalized cardiac enlargement without evidence of pulmonary congestion or intracardiac calcification at the time of admission. Three weeks later x-rays showed greater prominence of the left atrium and mild pulmonary congestion. The electrocardiogram at the time of admission revealed occasional premature ventricular contractions, left ventricular hypertrophy and abnormal P-waves. Repeat electrocardiograms showed improvement in the P-waves, no further premature ventricular contractions and evidence of digitalis effect.

Course: The patient was kept at bed rest and he was given 600,000 units of procaine penicillin daily. His general appearance improved during the next few days after admission. His heart rate decreased and became less variable after the first week. Premature ventricular contractions were no longer detected. He had no fever. The murmurs changed somewhat at first, then remained fairly constant. He ate well, and his fluid intake and output were normal. Two weeks after admission he complained of mild left flank pain with tenderness over the kidney area. Urinalyses were normal. Two days later he had a transitory headache and his blood pressure was 160/0, at that time. There were no other significant findings. He coughed up a small amount of brown-stained sputum. Digitalization with digitoxin was accomplished with little effect. During the next several days he seemed to feel again but about four weeks after admission he had some low grade fever for several days. On October 4, following an episode of extreme anxiety, the patient developed a cluster of small needle-point red spots on the upper hand and arm. The spots did not fade on pressure. On October 10, the patient had a questionably palpable spleen. The evening of October 11, he complained of a severe headache. His blood pressure was 300/0. Within two hours he became comatose, his heart rate became irregular and respirations became periodic. The left side seemed more flaccid than the right. There were no changes in the eyegrounds. He continued in this manner until 2:00 a.m. on October 12, when he expired.

COMMITTEE ON DIABETES AND THE MISSOURI DIABETES ASSOCIATION

DINNER MEETING

Monday, April 14, 1958, 6:30 p.m., Room 3

HENRY E. OPPENHEIMER, M.D., St. Louis, Presiding

Recent Trends in the Treatment of Thyroid Disease, E. Perry McCullagh, M.D., Chief, Endocrine Section, Cleveland Clinic, Cleveland, Ohio.

COMMITTEE ON MATERNAL WELFARE

BREAKFAST MEETING

Tuesday, April 15, 1958, 8:00 a.m., North Room

JOSEPH L. JOHNSTON, M.D., Springfield, Presiding

Report of the Committee on Maternal Welfare, Alva C. Trueblood, M.D., St. Louis.

A review of the maternal deaths in the State of Missouri for the period November 1, 1956, to October 31, 1957, will be presented.
Case Reports of Maternal Deaths Due to Hemorrhage.

Henry C. Willumsen, M.D., St. Joseph, Secretary, Western Division, Committee on Maternal Welfare.
Eugene C. Hamilton, M.D., St. Louis, Secretary, Eastern Division, Committee on Maternal Welfare.

INSTRUCTION COURSES

Tuesday, April 15, 1958

8:30 a.m. Motion Picture: Diagnostic and Therapeutic Advances in Liver Diseases. Crystal Room.

10:00 a.m. Instruction Courses:

Management of Upper Gastrointestinal Hemorrhage, Richard Sterkel, M.D., St. Louis. Room 8.

The immediate and definitive management of upper gastrointestinal hemorrhage is dependent upon the extent of bleeding and the basic underlying disease process. The presentation will be concerned with statistical incidence, practical diagnostic measures and criteria for estimating the amount of blood loss. A definitive therapeutic program will be outlined for certain of the more commonly encountered conditions.

Oral Hypoglycemic Agents, Sol Sherry, M.D., St. Louis. Crystal Room.

A review of the historic background, possible mechanisms of actions, and the present state of knowledge concerning the use of oral hypoglycemic agents in the management of the diabetic patient will be presented.

Fractures of the Femur, Richard T. Odell, M.D., St. Louis. Room 9.

Fractures of the femur will be discussed with the greatest emphasis being placed on the upper and lower portions of the femur.

Fractures of the upper end of the femur will include not only the treatment of acute fractures of the cervical neck, intertrochanteric and subtrochanteric fractures of the femur, but also the indications for, and the use of, replacement femoral head prosthesis.

Fractures of the shaft of the femur will be discussed briefly, including the use of the intramedullary nail; and the treatment of segmental fractures of the femoral shaft.

Fractures of the distal end of the femur with involvement of the knee joint, as well as of the distal shaft of the femur, will be discussed and treatment of these types of fractures.

If time permits, complications of the various types of fractures will be discussed briefly. Lantern slides of demonstrative cases will be employed.

Tendon Repair, John H. Gaskins, M.D., Kansas City. Room 7.

The discussion will include types of tendon repair by silk and wire technic, incisions used for tendon repair, indications and contra-indications for primary repair, site of laceration influencing time and type of repair, secondary repair, and postoperative care.

Use, Hazards and Abuse of Antibiotics, M. Kenton King, M.D., St. Louis. Room 2.

One of the most difficult problems in present day antibiotic therapy is the rapid and increasing emergence of resistant strains of Staphylococci. This problem will be presented and its management discussed. Secondly, evidence has begun to accumulate recently which suggests that the prophylactic use of antibiotics is not as effective as formerly supposed, and often is harmful. This evidence will be presented and discussed.

Present Status of Steroid Therapy, C. Stewart Gillmore, M.D., Kansas City. Room 3.

Discussion will include: (1) Brief history and types of steroid drugs employed in treatment of rheumatic and collagen diseases, with discussion of these diseases that respond to steriod therapy. (2) Methods, use and indications of when not to employ steroid therapy in the treatment of rheumatic diseases and dosages to be adhered to when used. (3) Pathologic and harmful effects from overdosage and prolonged use of steroid therapy with resulting hypercortisonism and disturbances of the blood picture.

11:00 a.m. Intermission to view exhibits.

11:30 a.m. Instruction Courses: Repeated from 10:00 a.m.

12:30 p.m. Intermission to view exhibits and for lunch.

UNIVERSITY OF MISSOURI MEDICAL ALUMNI ASSOCIATION

LUNCHEON MEETING

Tuesday, April 15, 1958, 12:30 p.m., Gold Room

FRANK G. MAYS, M.D., Washington, Presiding

Presentation of the Third Annual Medical School Alumni Achievement Award.

Radio and the Big News, Rex Davis, Director, KMOX, St. Louis.

GENERAL MEETING

Tuesday, April 15, 1958, Crystal Room

M. PINSON NEAL, M.D., Columbia, Presiding

2:00 p.m. The Management of a Patient With a Thyroid Nodule, Frank F. Allbritten, Jr., M.D., Kansas City, Kansas.

The high incidence of carcinoma reported to be present in the surgically asymptomatic thyroid nodule gives reason for real concern. Undoubtedly a significant number of patients with one or more nodules in the thyroid gland producing no symptoms are advised by their physicians to only await significant change before seeking surgical treatment. In order to evaluate the justification for such a policy the case histories of 171 consecutive euthyroid patients with nodular goiter treated in the surgical department of the University of Kansas Medical Center have recently been reviewed.

Twenty-three of the 171 had carcinoma; fourteen of the 23 (8.6 per cent of the entire series) had nothing in the findings to give rise to any suspicion of carcinoma—except the presence of a nodule. Cancer was present in the nodules of eight of 19 male patients (40 per cent) and in 9.2 per cent of 152 female patients. Cancer was present in 10 per cent of the euthroid patients with multiple nodules, a much higher incidence than generally suspected.

From these and other data cited it can be concluded that the risk of procrastination in the treatment of euthyroid patients with nodular goiter is significantly greater than prompt and adequate surgical removal.

2:30 p.m. Farmer's Lung, Helen A. Dickie, M.D., Madison, Wisconsin.

The respiratory illness encountered among farmers after exposure to moldy forage has been of interest in the last several years. The strikingly similar clinical picture and the consistent interstitial granulomatous pneumonitis encountered in surgical lung biopsies suggest that this is a distinct and important disease entity among the agricultural workers in the State of Wisconsin. The subsequent pulmonary function studies which have been carried out show a consistent pattern of a capillary alveolar block in the acute or subacute phase.

Thirty-nine patients have been seen whose illness has been diagnosed as farmer's lung.

Symptoms of shortness of breath, cough, fever, chills, in patients exposed to organic dusts should arouse the suspicion of farmer's lung. The roentgenographic evidence of an interstitial pneumonitis in a patient with such complaints makes the diagnosis of farmer's lung almost certain.

Farmer's lung is a potentially serious and crippling disease believed to result from a hypersensitivity response to molds or the products of molds on a wide variety of organic material.

3:00 p.m. Intermission to view exhibits.

3:30 p.m. Panel: Chest Diseases.
Moderator: Paul Murphy, M.D., St. Louis.
Panelists: Frank F. Allbritten, Jr., M.D., Kansas City, Kansas.
Helen A. Dickie, M.D., Madison, Wisconsin.
Glenn O. Turner, M.D., Springfield.

ANNUAL BANQUET IN HONOR OF PAST PRESIDENTS

Tuesday, April 15, 1958, 7:30 p.m.
Boulevard Room, Sheraton-Jefferson Hotel

WALTER S. SEWELL, M.D., Springfield, Presiding

Introduction of Guests.
Presentation of Past Presidents.
Presentation of 50 Year Pins.
Installation of the President, W. F. Francka, M.D., Hannibal.
Presentation of Past President's Key.
World Medicine and Its Influence for Peace, Gunnar Gunderson, M.D., President-Elect, American Medical Association, LaCrosse, Wis.
Your Medical Hit Parade for 1958, Greene County Medical Society.

The Greene County Medical Society will be host at a reception at 6:30 p.m. in the Crystal Room, preceding the Banquet.

GENERAL MEETING

Wednesday, April 16, 1958, Crystal Room

JOSEPH G. WEBSTER, M.D., Kansas City, Presiding

8:30 a.m. Motion Picture: The Physician and Emotional Disturbance. Crystal Room.

9:30 a.m. Fission Products in the Biosphere, Bernard F. Trum, Lt. Col., VC, USA, Washington, D. C.

Although the fission of heavy nuclei may result in about 170 fission fragments, creating various elements and masses, there are only a few of these which have been associated with environmental hazards.

The potential risk of levels of Stontium-90 was thoroughly investigated by the Joint Committee on Atomic Energy of the 85th Congress. This committee concluded that the evidence indicated there was no immediate hazard associated with the present levels of Sr-90 in the biosphere. A review of the statements made before the committee will be made.

From time to time reports have been published concerning the transient increase in Iodine-131 in the thyroid glands of man and animals. This isotope was responsible for the withdrawal of a large milk shed in England from production of milk for human consumption for a period of time. A review of this incidence, together with a comparison of levels throughout the world and what is considered to be the significance of these levels, will be attempted.

Only when the presumption of potential hazard is made, together with the recognition that even milk itself may be injurious in excess, does it seem to make sense in dealing with these situations. Ionizing radiation, whether from the physician's roentgen therapy or a nuclear weapon must be evaluated in a quantitative manner, sometimes even weighing risk potentials against the anticipated good. The situation is not new to society, however, "the play is not recognized because the actors are new."

10:00 a.m. Newer Concepts in Hypertension, Robert W. Wilkins, M.D., Boston, Mass. Crystal Room.
Question and Answer Period.

10:45 a.m. Intermission to view exhibits.

11:15 a.m. Panel: The Use of Insulin in Diabetes. Crystal Room.
Moderator: Henry E. Oppenheimer, M.D., St. Louis.
Panelists: Lucien W. Ide, M.D., St. Joseph.
Virginia H. Peden, M.D., St. Louis.
Harold H. Lurie, M.D., Springfield.
Thomas W. Burns, M.D., Columbia.

11:15 a.m. Symposium on Exfoliative Cytology. Gold Room.
Indications for and Principles of Exfoliative Cytology, Claude K. Leeper, M.D., Columbia.
Procedure, Omer E. Hagebusch, M.D., St. Louis.
Sources of Error, Frederick C. Coller, M.D., Springfield.
Correlation of Smear Findings, With Biopsy Study and Recommended Management, Victor B. Buhler, M.D., Kansas City.
Training Cytotechnicians, Joseph E. Flynn, M.D., Columbia.

HOUSE OF DELEGATES

First Meeting—Sunday, April 13, 1958—1:30 p.m.
Crystal Room, Sheraton-Jefferson Hotel

Order of Business

Call to Order by the Speaker of the House, Joseph L. Fisher, M.D., St. Joseph.
Invocation.
Preliminary Report of the Committee on Credentials.
Roll Call.
Report of the General Committee on Arrangements, R. O. Muether, M.D., St. Louis.
Reading of Minutes of Previous Meeting. (Published in July 1957 MISSOURI MEDICINE.)
Speaker's Instructions and Appointment of Reference Committees:
    Amendments to the Constitution and By-laws. Room 3, 5:00 p.m.,
    Resolutions. Room 2, 4:30 p.m.
    Miscellaneous Affairs. Room 8, 4:00 p.m.
    Medical Education and Public Welfare. Room 6, 5:15 p.m.
    Report of Officers. Crystal Room, 3:30 p.m.
    (Times are set based on tentative adjournment of the House of Delegates. Any Reference Committees meeting on Monday will meet in the same rooms immediately following adjournment.)
Reading of the President's Message, Walter S. Sewell, M.D., Springfield.
Reading of the President-Elect's Recommendations, W. F. Francka, M.D., Hannibal.
Report of the Secretary, E. Royse Bohrer, M.D., Jefferson City.
Report of the Executive Secretary, Tom R. O'Brien, St. Louis.
Report of the Treasurer, Jerome I. Simon, M.D., St. Louis.
Reports of the Standing and Special Committees:

- Scientific and Postgraduate Work, James G. Janney, Jr., M.D., St. Louis.
- Publication, Charles R. Doyle, M.D., St. Louis.
- Defense, Charles E. Hyndman, M.D., St. Louis.
- Public Policy and Public Relations, Jerome I. Simon, M.D., St. Louis.
- Medical Education and Hospitals, Kenneth Glover, M.D., Mount Vernon.
- Cancer, Marvin L. Napper, M.D., Springfield.
- Medical Economics, A. P. Rowlette, M.D., Moberly.
- Mental Health, Henry V. Guhleman, M.D., Jefferson City.
- Maternal Welfare, Joseph L. Johnston, M.D., Springfield.
- Infant and Child Care, Daniel B. Landau, M.D., Hannibal.
- Health and Public Instruction, A. W. McAlester, III, M.D., Kansas City.
- Constitution and By-Laws, W. A. Bloom, M.D., Fayette.
- Fractures, Paul W. Meyer, M.D., Kansas City.
- Conservation of Eyesight, Theodore E. Sanders, M.D., St. Louis.
- Control of Venereal Disease, Edwin M. Powell, M.D., Springfield.
- Industrial Health, H. M. Roebber, M.D., Bonne Terre.
- Diabetes, Henry E. Oppenheimer, M.D., St. Louis.
- Anesthesiology, Merritt H. Kimball, M.D., Kansas City.
- Hospital and Professional Relations, Hollis Allen, M.D., St. Louis.
- Laboratory Medicine, Joseph E. Flynn, M.D., Columbia.
- Physical Medicine and Rehabilitation, D. Elliott O'Reilly, M.D., St. Louis.
- Civil Defense, William C. Allen, M.D., Glasgow.
- Tuberculosis, Paul Murphy, M.D., St. Louis.
- Study of Cardiac Disease, V. Bryce Ballard, M.D., Kansas City.
- Alcoholism, Ralph E. Duncan, M.D., Kansas City.
- Rural Medical Service, A. E. Spelman, M.D., Smithville.
- American Medical Education Foundation, James P. Murphy, M.D., St. Louis.

Report of the Council, R. O. Muether, M.D., St. Louis.
Appointment of Committee on Nominations.
Unfinished Business.
New Business.

Second Session—Monday, April 14, 1958—4:30 p.m.
Crystal Room, Sheraton-Jefferson Hotel

Supplementary Report of the Committee on Credentials.
Reports of the Reference Committees:
- Amendments to the Constitution and By-Laws. Room 3.
- Resolutions. Room 2.
- Miscellaneous Affairs. Room 8.
- Medical Education and Public Welfare. Room 6.
- Report of Officers. Crystal Room.

Report of the Council.
New Business.

Last Session—Wednesday, April 16, 1958—1:30 p.m.
Crystal Room, Sheraton-Jefferson Hotel

Call to Order by the Speaker.
Report of the Committee on Credentials.
Roll Call.
Reading and Adoption of Minutes.
Report of Nominating Committee.
Election of Officers.
Report of Councilors elected.
Reports of Reference Committees:
- Amendments to the Constitution and By-Laws.
- Resolutions.
- Miscellaneous Affairs.
- Medical Education and Public Welfare.
- Reports of Officers.

Unfinished Business.
New Business (See Sec. 1, Chap. III).
Installation of Officers.
President's Appointments and Installation of Members of Committees.
Selection of the Place of the Next Annual Session.
Adjournment.

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[1] Nichols, R. L. and Finland, M.: J. Clin. Med. 49:410, 1957.

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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2,

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

Missouri Academy of General Practice, 10th Annual Assembly, Chase Hotel, St. Louis, October 18-19, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—fourth Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—March, May, October and December.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets third Friday of each month.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—third Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

SCIENTIFIC EXHIBITS

Mezzanine Floor, Sheraton-Jefferson Hotel

Clinical Experience With the Intravenous Secretin Test in Pancreatic Disease and Function, Arthur P. Klotz, M.D., and Hamdi S. Aktan, M.D., Kansas City, Kansas.

Orchiopexy in the Adult, John E. Byrne, M.D., St. Louis.

Cine-Cardiography: A New Diagnostic Method, J. Gerard Mudd, M.D., and Charles A. Nigh, M.D., St. Louis.

Congenital Heart Lesions: Surgical Correction Employing a Pump-Oxygenator, V. L. Willman, M.D., and C. R. Hanlon, M.D., St. Louis.

American Medical Education Foundation, American Medical Association.

Treatment of Spondylolisthesis Without Spinal Fusion, R. D. Woolsey, M.D., and J. P. Schaerer, M.D., St. Louis.

Effect of Prophylaxis in Rheumatic Heart Disease: Diagnostic Criteria for Rheumatic Fever and Recommended Treatment Schedules, Missouri Heart Association, Columbia.

Intramuscular Iron Therapy in Infancy, Rosellen E. Cohnberg, M.D., Monett.

A New Aid to Tonsil Surgery, Robert E. Ryan, M.D., St. Louis.

Extraphepatic Bile Duct Obstructions, Robert W. Bartlett, M.D., St. Louis.

The Generalist Looks at Constipation, W. E. Henrickson, M.D., Poplar Bluff.

Office Practice of Exfoliative Cytology, Committee on Laboratory Medicine.

Missouri State Sanatorium, Missouri State Sanatorium, Mount Vernon.

Bizarre Symptomatology of Renal Diseases, Robert A. Brennan, M.D., and Richard B. Dunham, M.D., St. Louis.

Missouri Medical Service, St. Louis.

Intestinal Obstruction in the Newborn, J. Eugene Lewis, M.D., and Armand E. Brodeur, M.D., Department of Surgery and Radiology, Cardinal Glennon Hospital, St. Louis.

TECHNICAL EXHIBITS

Mezzanine Floor, Sheraton-Jefferson Hotel

Geigy Pharmaceuticals, Yonkers, New York. Booth 1.

The Geigy exhibit features Butazolidin and Butazolidin-Alka, potent non-hormonal anti-arthritic and anti-inflammatory agent, also effective in the treatment of superficial thrombophlebitis; and Preludin, non-amphetamine appetite suppressant virtually without CNS stimulation. Also on display are Sterosan Hydrocortisone Cream and Ointment, for comprehensive control of a wider range of dermatoses; Medomin, the hypnotic which provides "natural" sleep; and Sintrom, potent oral anticoagulant with intermediate duration of action.

Pet Milk Company, St. Louis. Booth 3.

We will be pleased to have you stop and discuss the variety of time saving materials available to busy physicians. Our representatives are on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and "Pet" Instant Nonfat Dry Milk for special diets. A miniature "Pet" Evaporated Milk can will be given to all visitors.

U. S. Vitamin Corporation, New York. Booth 4.

Delicious fruity Flavored Vi-Syneral Vitamin Drops Fortified—with 100% natural vitamins A and D—are featured. Regular Vi-Syneral Vitamin Drops (unflavored) the pioneer "oil-in-water" preparation developed and introduced in 1943 by U. S. Vitamin Corporation are also on display. Literature and samples of these and other U.S.V. preparations are available.

G. D. Searle & Company, Chicago. Booth 5.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research. Featured are Envoid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, non-mercurial oral diuretic.

The C. V. Mosby Company, St. Louis. Booth 6.

Featured among the Mosby titles in Booth No. 6 are the following scheduled for 1958: Patton "Pediatric Index"; Miale "Laboratory Medicine—Hematology"; Modell "Drugs of Choice"; Kleiner-Orten "Human Biochemistry"; Willson "Obstetrics and Gynecology"; Burdette "Etiology and Treatment of Leukemia"; Allen "Strabismus Ophthalmic Symposium II"; Stephenson "Cardiac Arrest and Resusciation"; Alexander "Care of the Patient in Surgery"; Morris-Scully "Endocrine Pathology of the Ovary"; Gardner "Diagnostic Anatomy"; Cowdry "Care of the Geriatric Patient"; Rusk "Rehabilitation in Medicine"; Sorsby "Systemic Ophthalmology"; and Duke-Elder "System of Ophthalmology—Volume I—Evolution of the Eye."

Ayerst Laboratories, New York. Booth 7.

Theruhistin is featured at the Ayerst exhibit. Theruhistin is a highly potent antihistamine which is remarkably free of side effects. In a reported study on 602 patients suffering from various allergies, Theruhistin produced good to excellent results in 80 per cent and fair results in another 12 per cent.

Merck Sharp & Dohme, Philadelphia. Booth 8.

A new and promising diuretic is featured at the Merck Sharp & Dohme booth. Since the principal action of Diuril is a marked enhancement of the excretion of sodium, chloride and water, it has been designated a saluretic agent. This new compound achieves a profound electrolyte and water diuresis without attendant toxic effects and other disadvantages peculiar to the mercurials and certain other diuretic agents. Technically trained personnel are present to discuss this and other subjects of clinical interest.

C. B. Fleet Co., Inc., Lynchburg, Va. Booth 9.

Fleet is exhibiting Clysmathane, its most recent contribution in the field of medication by rectum—an advanced method of xanthine therapy. Clysmathane is a stable solution of theophylline monoethanolamine; easily retained; rapid and uniform absorption; prompt and predictable blood levels; with no rectal irritation after prolonged use.

W. B. Saunders Company, Philadelphia. Booth 10.

New Saunders titles published within the last few months include: Current Therapy 1958; Novak and Novak, Gynecologic and Obstetric Pathology; Levine, Clinical Heart Disease; Beckman, Clinical Use of Drugs; Welch and Powers, Essence of Surgery. The Medical, Surgical and Pediatric Clinics are, of course, perpetually new and current.

Wyeth Laboratories, Philadelphia. Booth 11.

Wyeth is featuring Polymagma®, the lower dose antidiarrheal, containing Claysorb®, a new adsorbent having five times the absorptive action of kaolin. Polymagma is Wyeth's brand of dihydrostreptomycin sulfate, polymyxin B sulfate and pectin with Claysorb (activated attapulgite, Wyeth), in alumina gel. Zatirin®, containing ethoheptazine citrate, a new Wyeth-developed compound, and acetylsalicylic acid. Zactirin is an effective, well-tolerated, non-narcotic analgesic for the relief of musculoskeletal pain; low back pain; pain of bursitis, synovitis and related rheumatic conditions; minor traumatic pain; subacute postoperative pain; postpartum pain, abdominal or perineal; pain secondary to dental infections and dental surgical procedures.

The Medical Protective Company, Fort Wayne, Ind. Booth 12.

"More doctors insured than ever before, fewer claims and suits filed in 1957"—that's the unique accomplishment in the professional liability insurance field of The Medical Protective Company from a half century of effective prophylactic procedures. Skilled defense, unhandicapped by excessive insurance, likewise reduced losses. Specialized Service makes our doctor safer.

C. W. Alban & Company, St. Louis. Booth 13.

C. W. Alban Company, the one stop service to the profession in surgical instruments, laboratory supplies and medical books, offers the ultimate in quality products of the most famous names in the manufacturing of American and foreign patterns and distributes the releases of most prominent publishers in the medical science field. Your visit will be our pleasure.

Parke, Davis & Company, Detroit. Booth 14.

Medical service members of our staff are in attendance at our booth to discuss important Parke-Davis specialties which are on display.

A. S. Aloe Company, St. Louis. Booth 15.

The A. S. Aloe Company will be pleased to have you visit their display. They have on hand a cross-section of their most complete line of physician and laboratory supplies and equipment. Featured are the new Aloe Swedish Instruments as well as the Disposagloves, an Aloe exclusive time saver for you and your assistant.

Medco Products Co., Tulsa, Oklahoma. Booth 16.

Presenting the Medco-Sonlator. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a Single Three-Way Sound Applicator. The Medco-Sonlator is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Wm. P. Poythress & Co., Inc., Richmond, Va. Booth 17.

A cordial welcome awaits you at the Poythress Booth 17. Solfoton and its companion products, Antrocol and Solfoserpine are featured. Also featured are

e conditions: Two or three
ts four times daily. After
ed response is obtained,
ually reduce daily dosage
hen discontinue.
cute or chronic conditions:
lly as above. When satisfactory
ol is obtained, gradually reduce
aily dosage to minimum
tive maintenance level. For best
ts administer after meals and
dtime.
autions: Because SIGMAGEN
ains prednisone, the
precautions and
raindications observed
this steroid apply also
e use of SIGMAGEN.

in any case it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: **1.** Spies, T. D., et al.: J.A.M.A. 159:645, 1955. **2.** Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. **3.** Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. **4.** Guerra, F.: Fed. Proc. 12:326, 1953. **5.** Busse, E. A.: Clin. Med. 2:1105, 1955. **6.** Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

SCHERING CORPORATION • BLOOMFIELD, N. J.

SG-J-643

Schering

Mudrane, outstanding Poythress anti-asthmatic drug; Trocinate, Poythress distinctive antispasmodic; Panalgesic, leading ethical local analgesic and counterirritant; and other well-known Poythress specialty products. Literature is available and your request for trial supplies of any of these drugs is invited.

E. R. Squibb & Sons, New York. Booth 18.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.

Donley-Evans & Company, St. Louis. Booth 19.

Lipo-Triazine & Lipo-Diazine—the most active, least toxic sulfas. Representing a new principal in oral sulfonamide therapy made possible by the use of a nontoxic lipoid vehicle. Sustained Therapeutic sulfa levels are produced with only twice a day dosage. Lipo-Triazine & Lipo-Diazine produce higher blood levels with the same amount or less total sulfa intake. These blood levels are produced on b. i. d. dosage compared with q. i. d. dosage of other sulfas. The percentage of acetylation is less, therefore Lipo-Triazine & Lipo-Diazine have greater therapeutic efficacy, greater convenience and are less toxic.

Ames Company, Inc., Elkhart, Ind. Booth 20.

Featured at the Ames Company exhibit are the latest developments in new, simplified diagnostic products which are adaptable to routine examination and patient management. The many advantages of the new diagnostic products are quickly demonstrable and you are cordially invited to stop at the Ames booth to see them.

Desitin Chemical Company, Providence, R. I. Booth 21.

Displayed are Desitin Ointment, the pioneer cod liver oil ointment for the treatment of burns, ulcers, wounds, diaper rash; Desitin Powder, the pioneer cod liver oil dusting powder for the treatment of intertrigo, diaper rash, exanthema, abrasions; Desitin Hemorrhoidal Suppositories relieve pain and itching, promote healing, give comfort in uncomplicated hemorrhoids, fissures, contain no anesthetics or styptics; Rectal Desitin Ointment for effective relief in simple hemorrhoids, pruritus and fissures, no anesthetics; Desitin Lotion, soothing, protective, mildly astringent for the treatment of pruritus, poison ivy and nonspecific dermatitis; Desitin Cosmetic and Nursery Soap, supermild, non-allergenic, pleasantly scented, deodorant.

Audio-Digest Foundation, Glendale, Calif. Booth 22.

Audio Digest Foundation—a subsidiary of the California Medical Association—gives the busy physician an effortless tour through the best of current medical literature each week. This medical tape-recorded "newscast"—compiled and reviewed by a professional Board of Editors—may be heard in the physician's automobile, home or office. The Foundation also offers medical lectures by nationally-recognized authorities.

The S. E. Massengill Company, Bristol, Tenn. Booth 23.

Best wishes for a most successful meeting! Massengill representatives would be pleased to discuss any Massengill products with you. Featured are Adrenosem (the unique systemic hemostat); Homagenets (the only solid homogenized vitamins); Obedrin (superior weight reducing aid); The Salcort Family (offering a complete range in arthritic therapy); Saferon (the peptonized iron); Massengill Powder (the douche preparation of choice).

William H. Rorer, Inc., Philadelphia. Booth 25.

Maalox, the non-constipating, pleasant tasting antacid and Ascriptin, a fast-acting pain-killer for professional use highlights the William H. Rorer, Inc., exhibit. Other products spotlighted are Fermalox, a low dosage approach to iron deficiency; Parepectolin, a pleasant tasting antidiarrheal preparation, and Chardonna, an economic and effective antispasmodic sedative tablet. Representatives on hand will be glad to answer all questions.

Holland-Rantos Company, Inc., New York. Booth 26.

Simplicity with security keynotes the Koromex exhibit. H-R representatives will gladly explain: Why patients can easily and correctly place Koro-Flex Diaphragms; Significant feature of Koramex A Vaginal Jelly when "jelly-alone" is advised; Three-fold effectiveness of Nylmerate Jelly and Solution Concentrate; Clinical value, in minor skin disorders, of Hollandex Silicone Ointment.

Office Machines, Inc., St. Louis. Booth 34.

Thermo-Fax "Secretary" Copying Machine, which produces a patient's statement for doctors in 4 seconds without chemicals of any type is being displayed. This machine is now in use in some three to four hundred St. Louis doctors' offices. Other uses are copying insurance reports, patients' records, death certificates, correspondence.

Ciba Pharmaceutical Products, Inc., Summit, N. J. Booth 35.

Ciba is featuring two prescription specialties, Doriden, a nonbarbiturate hypnotic-sedative, and Pyribenzamine Lontabs, a totally new concept in long-acting antihistamines. Doriden is being widely used as a safe barbiturate replacement and is nonhabit forming. Pyribenzamine Lontabs provide speedy and sustained antiallergic action up to twelve hours. The tablet is not delayed action, not repeat action, but sustained antiallergic action.

THE PURDUE FREDERICK COMPANY, NEW YORK. BOOTH 36.

We cordially invite you to visit our booth where our special representatives will provide information and samples of our featured specialty pharmaceuticals; Glutazyme Capsules and Powder, a nutritive supplement for the patient over 40; Senokot Tablets and Granules—time proven constipation correctives, with their allied products, Senokap, Senobile and Senokot with Psyllium, Somatovite Liquid and Tablets for promoting weight gain and appetite in the undernourished, underweight, hyperexcitable child.

LOV-E' BRASSIERE COMPANY, HOLLYWOOD, CALIF. BOOTH 37.

You are invited to view our complete line of custom-fitted brassieres designed to provide corrective support for specific breast conditions in exact accordance with the physician's instructions. We also would like to show you our new and improved breast prosthesis, the Lov-E' "Twin" breast form. This new form provides adjustable weight for perfect balance, ideal for all occasion wear, custom-fitted and weight adjusted to the individual's need. Our special representatives will be happy to greet you and answer any questions.

ABBOTT LABORATORIES, NORTH CHICAGO. BOOTH 38.

Members of the medical profession are cordially welcomed at Abbott Laboratories' exhibit of leading specialties and new products. Our representatives are available at the exhibit to give information on the products and to answer any questions you may have.

LEDERLE LABORATORIES, NEW YORK. BOOTH 39.

AMERICAN FERMENT COMPANY, INC., NEW YORK. BOOTH 40.

See our demonstration of the emollient, sudsing detergent action of antibacterial Tod'L. Effective in the treatment and prevention of various skin affections. Stop by for a personal supply of Falgos, the buffered analgesic features: Caroid and Bile Salts Tablets, Alcaroid and Supligol.

THE RHINOPTO COMPANY, INC., DALLAS. BOOTH 41.

ROCHE LABORATORIES, NUTLEY, N. J. BOOTH 42.

Lipo Gantrisin is a long-acting form of Gantrisin—the single, wide-spectrum sulfonamide. Because Lipo Gantrisin provides higher, more prolonged blood levels for approximately 12 hours, most patients need only 2 doses a day. Marsilid 'Roche' is a psychic energizer—the very opposite of a tranquilizer. It provides a feeling of normal eudaemonia (well-being) rather than abnormal euphoria. Marsilid has a pronounced therapeutic effect in depressed and regressed psychotic patients, in mild depression, as an appetite stimulant, and in promoting increased vitality. Marsilid does not raise blood pressure. In mild depression, Marsilid usually takes effect within a week or two; in severe psychotic patients, results may be apparent only after a month or more.

ELI LILLY AND COMPANY, INDIANAPOLIS. BOOTH 43.

You are cordially invited to visit the Lilly exhibit located in Booth 43. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

SANBORN COMPANY, WALTHAM, MASS. BOOTH 44.

Featured at the Sanborn exhibit is the new and outstandingly successful Model 300 Visette—a complete electrocardiograph of full diagnostic accuracy that weighs only 18 pounds. The familiar Model 51 Viso-Cardiette is also available for comparison as is the famous Sanborn Metabulator. For those interested in research, full data is available regarding Sanborn Recording Systems (single and multichannel; direct, photographic and tape), Monitoring Oscilloscopes, and Transducers.

J. E. HANGER, INC., ST. LOUIS. BOOTH 45.

Modern prosthetic devices, for upper and lower extremity amputees, are displayed by the Hanger organization who offer a complete service to the amputee. A representative is on hand to show these prostheses together with the many recent improvements for both upper and lower extremity amputees.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA. BOOTH 47.

SKF features (1) "Vi-Sorbin" (New), the potent modern tonic that incorporates the newly-discovered Absorption Enhancement Factor, D-Sorbitol, and contains B_{12}, B_6, iron and folic acid; (2) Compazine®, the tranquilizer and antiemetic remarkable for its freedom from drowsiness and depressing effect; and (3) the unique Spansule® sustained release preparations. Our Representatives welcome the opportunity to discuss SKF products with you and to be of help in any way they can.

BURROUGHS WELLCOME & CO., INC., TUCKAHOE, N. Y. BOOTH 49.

The extensive research facilities of "B. W. & Co.," both here and in other countries, are directed to the development of improved therapeutic agents and technics. Through such research "B. W. & Co." has made notable advances related to leukemia, malaria, diabetes, and diseases of the autonomic nervous system; and to antibiotic, muscle-relaxant, antihistaminic, and antinauseant drugs. An informed staff at our booth will welcome the opportunity to discuss our products and latest developments with you.

DUMAS-WILSON & COMPANY, ST. LOUIS. BOOTH 50.

Dumas-Wilson & Co., St. Louis, in Booth No. 50 extends a cordial invitation to the physicians attending this annual session to visit our booth featuring several new specialty items of interest to the specialist as well as the general practitioner.

ENCYCLOPEDIA AMERICANA, GRAND RAPIDS, MICH. BOOTH 51.

Encyclopedia Americana invites you to inspect their new 1958 edition which leading educators find superior and prefer over all others. No school or library is without it. The U. S. Government ordered more than a thousand sets for use in every major department. If you want modern living at its best, it will more than repay you to visit their booth.

HAMILTON-SCHMIDT SURGICAL COMPANY, ST. LOUIS. BOOTH 53.

The Hamilton-Schmidt Surgical Company is showing in Booth 53 the latest patterns in Surgical Instruments, Ultrasonics, Microtherm and will demonstrate the latest model Liebel-Florsheim self Calobrating Basal Metabalor—also Physician Bags and Stethoscopes. The brand new Burdick Cardiacmonitor is being demonstrated.

THE COCA-COLA COMPANY, ATLANTA, GA. BOOTH 54.

Ice-cold Coca-Cola served through the courtesy and cooperation of the Coca-Cola Bottling Company of St. Louis, St. Louis, and the Coca-Cola Company.

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS, OHIO. BOOTH 56.

The Warren-Teed Products Company is featuring three specialty products at Booth 56. Ilopan (injectable Pantothenyl Alcohol) for prevention of postoperative retention of flatus and feces; Modane Tablets and Liquid, a nutritive deconstipant; Cal-O-B Tablets, a soluble and assimilable calcium and phosphorus supplement. Courteous medical service representatives will welcome all registrants at the Warren-Teed display.

MILEX PROFESSIONAL SPECIALITIES, PEORIA, ILL. BOOTH 57.

Milex Products is displaying a full line of Gynesic Specialties, including our manually shapeable, plastic, Folding Pessaries, Tricho-san, and Crescent Pakits. Newer items include Lestens for premenstrual tension, our Premarital Guides, and a complete program for Uterine Cancer Detection—including the Cervitome and Coagsuc for cold coning of the cervix.

YORKTOWN PRODUCTS CORPORATION, NEW YORK. BOOTH 58.

Exul is a nutritive substance which aids the healing of peptic ulcer. Exul offers both specific and general support to the physiologic requirements of healing. Peptic digestion of protein continues unhampered under Exul therapy which makes unnecessary antacid, antispasmodic, anticholinergic or sedative drugs. The rapid healing of gastric and duodenal ulcers under Exul therapy may be attributed to its unique protein-sparing action.

DOHO CHEMICAL CORPORATION, NEW YORK. BOOTH 59.

Doho Chemical Corporation is pleased to exhibit: Auralgan, ear medication in otitis media and removal of cerumen; Otosmosan effective, nontoxic fungicidal and bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears; Rhinalgan, nasal decongestant free from systemic or circulatory effect and equally safe to use on infants as well as the aged; New Larylgan, soothing throat spray and gargle for infectious and non-infectious sore throat involvements.

JOSEPH E. SEAGRAM & SONS, INC., NEW YORK, N. Y. BOOTH 61.

Congeners (fusel oil, aldehydes, acids, etc.) are compounds found in all alcoholic beverages that provide the taste, bouquet and color. In too high concentrations, however, they can cause undesirable after effects. This exhibit, based on analyses by Foster D. Snell, Inc., consulting chemists, shows how leading brands of various alcoholic beverage types differ in their congeneric concentration. Physicians who advise moderate drinking for some patients can be guided by these findings.

A. G. EDWARDS & SONS, CLAYTON, MO. BOOTH 62.

WINTHROP LABORATORIES, NEW YORK, N. Y. BOOTH 63.

Isuprel Franol, new sublinqual-oral tablet with "flavor-timer" for dependable day in and day out prophylaxis of bronchial asthma (taken orally) as well as for quick relief of an acute attack (sublingually). Tablets contain a sublingual layer of Isuprel 10 mg. (Isuprel 5 mg. in Isuprel Franol Mild for children) over a central core of benzylephedrine 32 mg., theophylline 130 mg., and Luminal 8 mg.

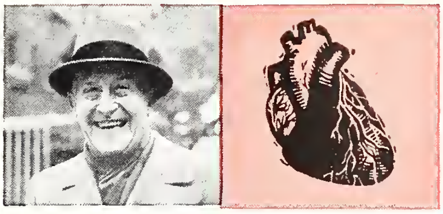
THE UPJOHN COMPANY, KALAMAZOO, MICH. BOOTH 65.

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA. BOOTH 66.

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and complete product information. To make your visit to the booth productive, specially trained representatives are on hand to tell you about: Mead Johnson Formula Products Family which features Lactum, Olac, Dextri-Maltose, Sobee, Nutramigen and Probana. All are easy to prescribe, easy to prepare, conveniently packaged and readily available. The Colace Products Family, for the management of constipation in all your patients. Peri-Colace softens stools and stimulates peristalsis when bowel motility is inadequate. Colace softens stools without laxative action when bowel motility is adequate. Tempra, the first physician-controlled antipyretic analgesic in two liquid dosage forms. Tempra is available on ℞ only. It comes in wild cherry flavored drops and mint flavored syrup. Sustagen, the only single food complete in all essential nutrients. It provides every nutrient that medical, surgical or poorly nourished patients need for nutritional maintenance and rehabilitation.

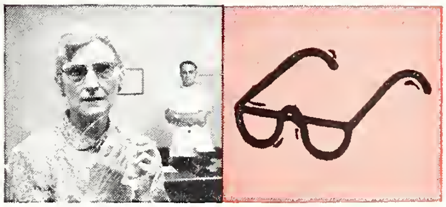
in each of these indications
for a tranquilizer . . .



SR is a cardiac patient. His doctor put him on ATARAX because (+) it is an anti-arrhythmic and non-hypotensive tranquilizer.

Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+) it lowers gastric secretion while it tranquilizes.

Asthmatic JL used to have frequent tantrums followed by acute bronchospasm. Her family doctor tranquilized her with ATARAX because (+) it is safe, even for children.



Senile anxiety and persecution complex dogged Mrs. K. until her doctor prescribed ATARAX Syrup. (+) It tastes good, and it's a perfect vehicle for Mrs. K's tonic.

Dosage: Children, 1-2 *10 mg.* tablets or 1-2 tsp. Syrup t.i.d. Adults, one *25 mg.* tablet or 1 tbsp. Syrup q.i.d.
Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

. . . ATARAX® gives you an extra benefit
(BRAND OF HYDROXYZINE)

Roerig
New York 17, New York
Division, Chas. Pfizer & Co., Inc.

Woman's Auxiliary to the Missouri State Medical Association

Thirty-Third Annual Meeting

Sheraton-Jefferson Hotel, St. Louis

April 13, 14, 15, 1958

TENTATIVE PROGRAM

Sunday, April 13

1:30 p.m. Registration—Foyer, Second Floor, 12:30 to 4:00 p.m.

2:30 p.m. Preconvention Executive Board Meeting—Room 7.
Mrs. Armand D. Fries, presiding. All officers, directors, chairmen of standing committees, county presidents, presidents-elect, and past state presidents urged to attend. Other members welcome.
Invocation—Mrs. F. A. Crozier, Richmond.
Pledge of Loyalty—Mrs. Kenneth E. Knabb, Springfield.
Announcements—Mrs. Lee T. Ford, Convention Cochairman, St. Louis.
Roll Call—Mrs. D. R. Edwards, Recording Secretary, Sedalia.
Business—All business to be brought before the General Assembly must be presented to, and passed on, at this meeting.

6:30 p.m. Social Hour—"Voo-Doo" Bar, Suite to be announced.

7:30 p.m. Buffet Supper and Calypso Cruise—Boulevard Room. All doctors and their wives and friends are urged to join this exciting "Noche de Fiesta" in a colorful Caribbean setting.

Monday, April 14

8:00 a.m. Past President's Breakfast—Suite of Mrs. Armand D. Fries, State President. All Past Presidents invited to make reservations.

8:30 a.m. Registration—Foyer, Second floor. All members please register.

9:00 a.m. General Meeting—Gold Room. Mrs. Armand D. Fries, presiding.
Invocation—Mrs. W. F. Francka, Hannibal.
Pledge of Loyalty—Mrs. Hubert M. Denny, Union.
Greeting—Mrs. Oliver E. Tjoflat, President, St. Louis City Auxiliary.
Response—Mrs. C. M. Lederer, Warrensburg.
Roll Call—Mrs. D. R. Edwards, Sedalia.
Report of 1957 Reading Committee—Mrs. Henry C. Bauman, Maryville.
Report of Credentials Chairman—Mrs. Robbert A. Mayer.
Committee Appointments.
Announcements—Mrs. J. Martyn Schattyn, Convention Cochairman, St. Louis County.
Reports—Officers, Directors, Chairmen of Standing Committees and County Auxiliary Presidents.

12:30 p.m. "Fanfare" Luncheon—Gold Room, honoring Mrs. Paul C. Craig, A.M.A. Auxiliary President, Councilors and Officers of the Missouri State Medical Association.
Invocation—Mrs. Willard Bartlett, Sr., Founder of Auxiliary.
Introductions.
Greeting—Dr. Walter S. Sewell, President, Missouri State Medical Association.
Guest Speaker—Mrs. Paul C. Craig, Wyomissing, Pa., "Health Is a Joint Endeavor."

3:00 p.m. "Funfare" Bridge—Gold Room. All members and friends invited to join in the "nonsense" for beautiful prizes.

Tuesday, April 15

8:30 a.m. Registration—Foyer, Second floor.

9:00 a.m. General Meeting—Gold Room. Mrs. Armand D. Fries, presiding.
Invocation—Mrs. Solon Haynes, Kansas City.
Pledge of Loyalty—Mrs. Carl T. Buehler, Jr., Eldon.
Roll Call—Mrs. D. R. Edwards, Sedalia.
Greeting—Mrs. Louis F. Howe, President, St. Louis County Auxiliary.
Announcements—Mrs. Lee T. Ford, Convention Cochairman.
Report of Registration Chairman—Mrs. Thomas Thale, St. Louis.
Memorial Service—Mrs. Jordan Kelling, Waverly.
Reports—Continued from Monday.
Unfinished Business.
New Business—Report of Resolutions Committee, Mrs. Harry M. Gilkey.
  Report of Revisions Committee, Mrs. Norton J. Eversoll.
  Report of Nomination Committee, Mrs. Charles T. Shepherd.
Election of Officers, Directors and Delegates to the A.M.A.
Courtesy Resolutions—Mrs. William H. Grundmann, St. Louis County.
Installation of Officers—Mrs. A. J. Crider, Dixon.

12:30 p.m. Bus leaves Hotel for Le Chateau, 10405 Clayton Rd.

1:00 p.m. Installation Luncheon—Frontenac Room, Le Chateau, honoring Past State Presidents, new officers and Mrs. Walker L. L. Curtis, College Park, Ga., President, Southern Medical Auxiliary.

Invocation—Mrs. Weldon L. Sportsman, N. Kansas City.

Introduction of Guests.

Greeting—Mrs. Walker L. Curtis, College Park, Ga.

Presentation of "Outstanding Auxiliary" Award, and other awards.

Presentation of Gavel to New President—Mrs. Armand D. Fries.

Acceptance Speech—Mrs. Henry C. Bauman, Maryville.

Presentation of Past President's Pin.

"Fashion Frolic"—Lovely costumes from the French Shop, Maryland Avenue, modeled by Auxiliary members; "Do-It-Yourself" Originals by members of the M.D.C. Golf Association. Musical Background—Mrs. Ellsworth A. Westrup. Commentator—Mrs. Charles T. Shepherd.

3:00 p.m. Postconvention Board Meeting—Le Chateau, Mrs. Henry C. Bauman, presiding. All newly elected or appointed officers, directors, committee chairmen, county presidents and presidents-elect are expected to attend.

7:30 p.m. Annual Banquet of the Missouri State Medical Association—Boulevard Room, Sheraton-Jefferson Hotel. Dr. Gunnar Gundersen, LaCrosse, Wis., President-elect, A.M.A. "World Medicine and Its Influence for Peace."

Committees

General Chairmen: Mrs. Lee T. Ford, Mrs. J. Martyn Schattyn.

Advisory: Mrs. Harold H. Feller.

Credentials: Mrs Robert A. Mayer, Mrs. Benjamin F. Smith.

Registration: Mrs. Thomas Thale, Mrs. Guy N. Magness.

Hospitality: Mrs. Lilburn C. Boemer, Mrs. Joseph B. Kendis.

Decorations: Mrs. Maximilian Weitman, Mrs. Arthur W. Westrup.

Finance: Mrs. Irl G. Tremain, Mrs. Paul W. Miles.

Headquarters: Mrs. Joseph E. Carney, Mrs. Edward J. Helbing.

Information: Mrs. James F. Dowd, Mrs. William A. Knight, Jr.

Press and Publicity: Mrs. Leo P. FitzGerald.

Pages: Mrs. Eugene V. Henschel, Mrs. Joseph D. O'Keefe.

Tickets: Mrs. Edwin C. Ernst, Mrs. Carl C. Althaus.

Buffet Supper: Mrs. Charles T. Shepherd, Mrs. Warren Bowersox.

Monday Luncheon: Mrs. William E. Moore, Mrs. Harold H. Feller.

Monday Bridge Party: Mrs. Robert E. Koch.

Tuesday Luncheon: Mrs. Edmund S. Beckette, Mrs. George J. Wulff.

Favors: Mrs. William H. Grundmann, Mrs. Delevan Calkins.

Past President's Breakfast: Mrs. Walter C. G. Kirchner, Mrs. Frank L. Davis.

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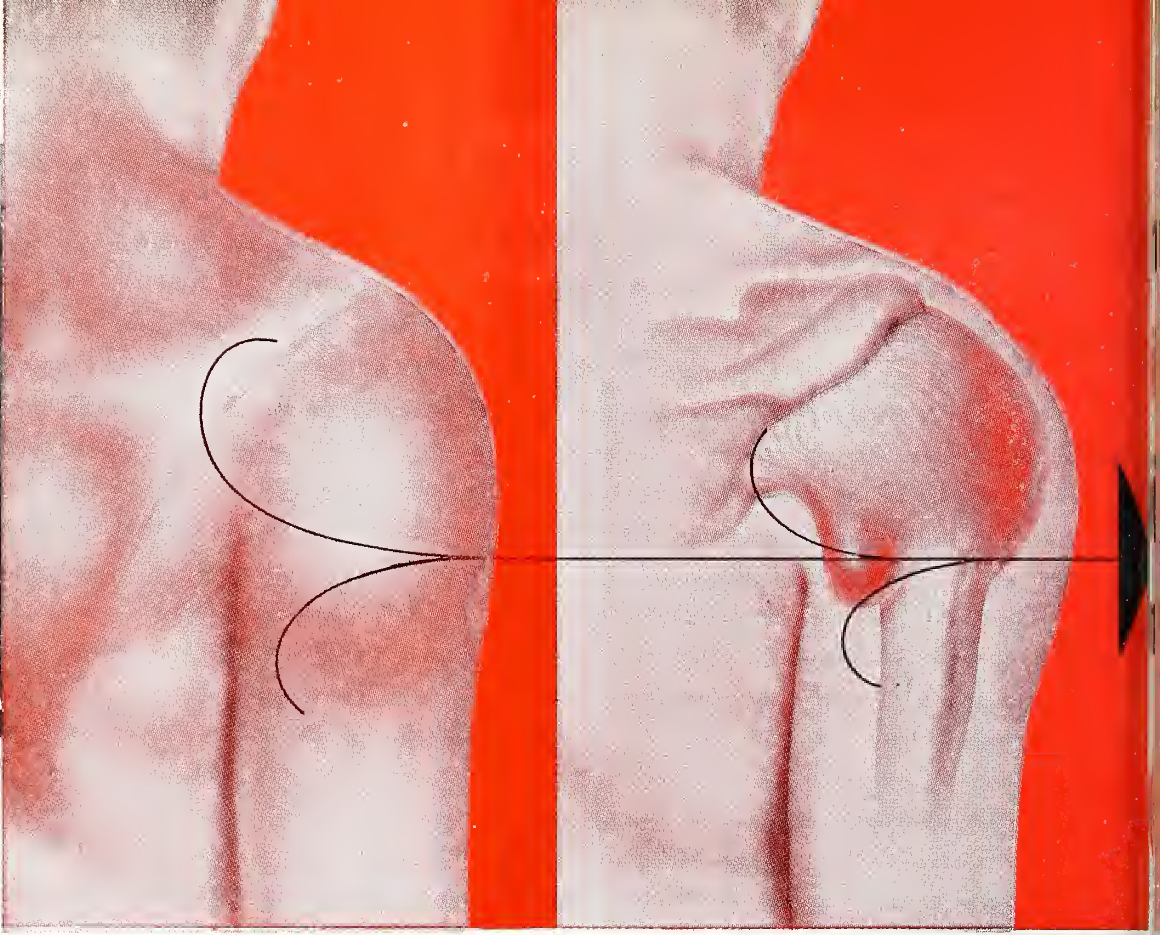
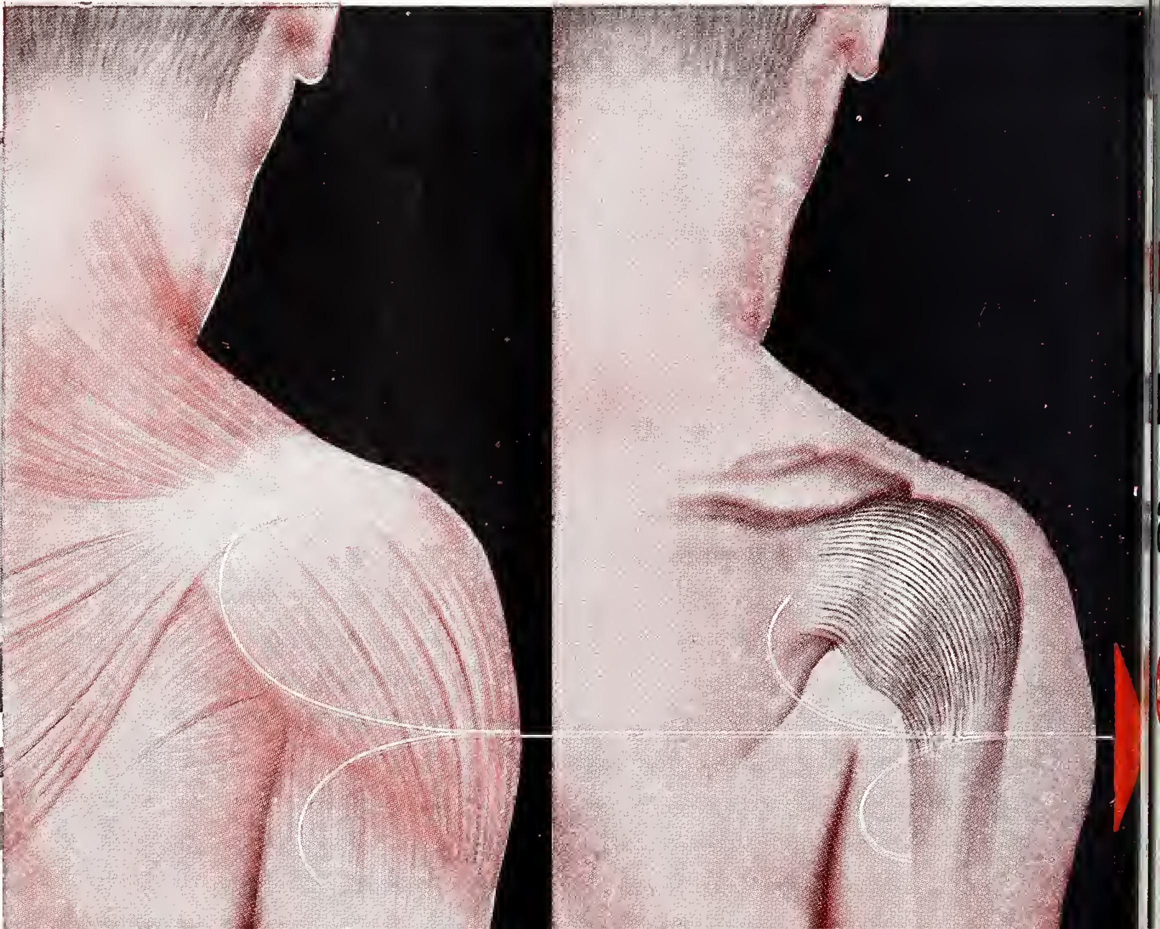


"Rheumatoid arthritis is a constitutional disease with symptoms affecting chiefly joints and muscles."[1] "Pain in the affected joint is accompanied by splinting of the adjacent muscles, with resultant 'muscle spasm.' "[2]



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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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MISSOURI SOCIETY OF MEDICAL TECHNOLOGISTS

SCIENTIFIC SESSION, SHERATON-JEFFERSON HOTEL, ROOM 1

Monday, April 14, 1958

9:00 a.m. Invocation, Father Joseph Winter, Chaplain at Cardinal Glennon Memorial Hospital for Children, St. Louis.
Blood Bank Session.
9:10 a.m. Lectures by Dr. Hugh Chaplin and Dr. Argell.
11:30 a.m. Blood Bank Panel: Dr. Hugh Chaplin, Dr. Argell, Dr. Drummond H. Bowden, Dr. John Pfaff, Jr., Miss Marie Anderson, M.T. (A.S.C.P.), Miss Lulu Mims, M.T. (A.S.C.P.) BB.
12:30 p.m. Intermission.
2:00 p.m. Workshop in Spectrophotometry Using the Coleman Junior Spectrophotometer, Vincent P. Perna, M.D., Instructor in Pathology, University of Missouri School of Medicine, Columbia.

Tuesday, April 15, 1958

9:00 a.m. Serum Iron and Total Iron Binding Capacity, Bernadette Bocklage, Ph.D., Biochemist, Snodgras Laboratory, City Hospital; Assistant Professor in Biochemistry, St. Louis University School of Medicine, St. Louis.
9:45 a.m. Practical Aspects of Diagnex Methylene Blue Test, William N. Blalock, M.D., Instructor in Clinical Medicine, Washington University School of Medicine, St. Louis.
10:30 a.m. Potassium and Magnesium Metabolism, Eugene F. Tucker, M.D., Senior Instructor, St. Louis University School of Medicine; Director of Laboratories, St. Mary's Hospital, St. Louis.
2:00 p.m. Cholinesterase Determination, Marian Winter, B.S., M.T. (A.S.C.P.), Chief Clinical Chemist, St. Mary's Hospital, Kansas City.
2:45 p.m. Education Panel on Medical Technology, Moderator: Mrs. Audrey Wines, B.S., M.T. (A.S.C.P.). Panel Members: John D. Bauer, M.D., Pathologist, DePaul and Faith Hospitals, Instructor, Washington University School of Medicine, St. Louis; Angelo Lapi, M.D., Pathologist, St. Mary's Hospital, Kansas City; Julia F. Hodge, B.S., M.T. (A.S.C.P.), Laboratory Supervisor, DePaul Hospital, St. Louis; Sr. John Brendan, C.S.J., St. Joseph's Hospital, Kansas City.
3:30 p.m. Routine Urinalysis, Dr. Hollis Allen, Pathologist, Clinical Pathological Laboratory, St. Louis.

Wednesday, April 16, 1958

9:00 a.m. Laboratory Identification of Indigenous Hospital Staphylococcal Infection by Bacteriophage Typing, Leonard F. Laskowski, Jr., Ph.D., Assistant Professor of Pathology, St. Louis University School of Medicine; Consultant in Microbiology to St. Mary's Group of Hospitals, St. Louis.
10:00 a.m. Observations on the Epidemic of Asian Influenza in the St. Louis Area, Goronwy O. Broun, M.D., Professor of Internal Medicine and Director of the Department, St. Louis University School of Medicine, St. Louis.
11:15 a.m. Exfoliative Cytology, Joint Session with Missouri State Medical Association.
2:00 p.m. Hematology Seminar.
White Cell Antibodies, Thomas E. Brittingham, M.D., Instructor in Medicine, Trainee of National Institutes of Health, Washington University School of Medicine, St. Louis.
Electrophoresis of Hemoglobins—Paper, Starch, and Agar, Virginia Minnich, M.S., Research Associate in Medicine, Washington University School of Medicine, St. Louis.
Bone Marrow Transplantation, William J. Harrington, M.D., Associate Professor of Medicine, Washington University School of Medicine, St. Louis.
Coordinated talk on "Hemolytic Disease of the Newborn." Drummond H. Bowden, M.B., Ch.B., M.R.C.P. and James P. King, M.D., St. Louis.

From the Medical Schools

UNIVERSITY OF MISSOURI

Coming Events

Dr. Ward Darley, Executive Director of the Association of American Medical Colleges, Evanston, Illinois, has accepted the invitation of the University of Missouri School of Medicine to give the Assembly Lecture sponsored by the School of Medicine. Dr. Darley will speak on April 23, at 8:00 p.m. in the Auditorium of the Medical Center. He will speak to the assembly of faculty and student body about medical education, the physician-patient relationship and the art of medicine.

Meetings

Dr. Charles F. Gell, M.C., D.Sc. (Med.), Visiting Professor of Aviation Physiology at the Medical School of the University of Pennsylvania and Director of the Naval Aviation Physiology Laboratory in Philadelphia, spoke at a meeting held at the Medical Center on January 22. He spoke on the physiological problems attendant upon modern space travel. Dr. Gell is one of the outstanding specialists in this highly specialized field.

The second regular monthly meeting of the Medical History group was held on February 12 at the Medical Center. Dr. Raymond Vickers of the Department of Medicine, spoke to the group on "The History of a London Hospital (St. Bartholomew's)."

Colonel Arthur B. Tarrow, of the U. S. Air Force Medical Corps, presented two lectures to the faculty and student body of the University of Missouri Medical Center on February 13 and 14. These lectures were sponsored by the Section of Anesthesiology of the Department of Surgery. Approximately 150 heard Col. Tarrow speak on "Transportation of Patients with Respiratory Difficulties by Air" and "The Plasma Volume Expanders."

Tours of the Medical Center

During the last month, visitors through the Medical Center included the following: January 20, 250 city school superintendents; January 30, 25 agricultural extention workers; February 5, 60 rural ministers, and February 15, 30 Ladies Auxiliary of American College of Physicians.

Trips and Talks

Dr. Roscoe L. Pullen, Dean of the School of Medicine, attended the annual Congress on Medical Education and Licensure of the American Medical Association held in Chicago from February 8 to 12. On Wednesday evening, February 12, Dr. Pullen spoke at a meeting of the Student American Medical Association at the Medical Center on the subject of "Training for General Practice."

Dr. Frank B. Engley, Jr., Assistant Dean of the School of Medicine, and Dr. Dallas K. Meyer, Chairman of the Committee on Admissions of the School of Medicine, attended a meeting at William Jewell College at Liberty, Missouri, on February 13 and 14. The meeting was sponsored by the science faculty of the school and Dr. Engley and Dr. Meyer discussed premedical education and the University of Missouri School of Medicine.

Dr. John Killough, associate professor and acting chairman of the Department of Medicine, spoke at a meeting of the Masonic Lodge in Jefferson City on "Middle East Politics."

Dr. Jack Martt, assistant professor of medicine, attended a meeting sponsored by the John and Mary R. Markle Foundation from February 10 to 13 at Colorado Springs, at which time he was interviewed as a candidate for a Markle Foundation Fellowship.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended a meeting of the National Association of Operating Room Nurses held in Philadelphia, from February 10 to 12, where he took part in a panel on "Sterilization" on February 10 on problems of sterilization which covered the various microbiological aspects of disinfection around surgical wards of instruments, rooms, floors and surgical packs, and included discussion of the chemical, gaseous, and steam sterilization procedures.

Dr. J. S. Roden, associate professor and chairman of the Department of Obstetrics and Gynecology, attended a meeting sponsored by the South Atlantic Obstetrical and Gynecological Society held in Hollywood, Florida, from February 1 to 7.

Dr. Harold H. Haugen, instructor in obstetrics and gynecology, spoke at the postgraduate meeting of General Practitioners in Washington, Missouri, on February 11 on "Functional Uterine Bleeding." Dr. Haugen also attended the St. Louis Gynecological Society Symposium on "Cancer of the Female Pelvis" held on February 13 in St. Louis.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, presided at an interim meeting of the Missouri Society of Pathologists held in Columbia on January 19. Dr. M. Pinson Neal, professor of pathology, also attended this meeting. On January 23, Dr. Flynn and Dr. Neal addressed the student assembly of Christian College on "Medical Technology as a Career." On February 6 and 7, Dr. Flynn attended the second conclave on nuclear energy sponsored by the U. S. Atomic Energy Commission held in Upton, New York. The topic of discussion was the uses of nuclear energy. On February 3, Dr. Neal spoke to the University High School students on the Medical Technology Training Program and on February 11, Dr. Neal addressed the Stephens College Science Club on the Medical Technology program.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, attended the council meeting of the American Diabetes Association in Atlanta, Georgia, on January 21 to 24 and also participated as a faculty member of the Sixth Postgraduate Course of the Association in a panel discussion on "Problems Encountered in the Treatment of Diabetes."

On January 27, Dr. Jackson attended a meeting of the Training Grants Committee of the National Institutes of Health held in Washington, D. C.

Dr. W. R. Hepner, Jr., associate professor of pediatrics, spoke at a meeting of the Bureau of Maternal and Child Health of the Division of Health of Missouri on February 6. Dr. Hepner spoke on the "Facts and Fables of Causes of Mental Retardation."

Dr. James E. Randall and Dr. Arthur W. Merrick, assistant professors of physiology and pharmacology, attended a meeting sponsored by the Biophysical Society at the Massachusetts Institute of Technology in Cambridge, Massachusetts on February 5 to 7. Approximately 750 of the profession interested in biophysical principles attended this meeting at which physiological, biochemical, and biophysical problems in muscle contraction were discussed. Dr. Randall also made a consultation visit with the New York University statistical computation laboratory in connection with his research.

Graduate Assistant Jim L. Shields spoke at a meeting of the Beta Beta Beta, National Biological Fraternity at Central College, Fayette, on the "Biological Applications of Electrophoresis."

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, participated in the program of the Radiological Society of Southern California, held on January 25 in Los Angeles. Dr. Lodwick presented two papers on the following topics: "Roentgen Patterns of Bone Destruction Related to Survival in Primary Bone Tumors," and "Some Observations of Diagnostic and Prognostic Significance in Lung Tumors." On February 8, Dr. Lodwick was moderator for the Breakfast Workshop (Teachers Conference) of the American Roentgen Ray Society held in Chicago, Illinois. Dr. Lodwick also spoke at a meeting of the Tuesday Club on February 4, in the Missouri Methodist Church of Columbia. Approximately 100 heard Dr. Lodwick talk on the University of Missouri Medical School. On February 14, Dr. Lodwick spoke at a meeting of newspaper editors and journalists sponsored by the School of Journalism of the University of Missouri. Dr. Lodwick presented a lecture on "The Diagnostic Use of Radioactive Isotopes in Humans."

On January 10, Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery; Dr. William H. Wade, instructor in surgery; Mrs. Marilyn Wade, operating room supervisor; Mr. James Turner, shop superintendent, and Mr. B. J. McClatchey, surgical technician, visited the Department of Surgery at the University of Iowa, Iowa City. Dr. Stephenson also attended a meeting of the United States Junior Chamber of Commerce in Phoenix, Arizona, from January 17 to 18.

Dr. Kenneth K. Keown, professor of anesthesiology, attended the annual Congress of the Council on Medical Education and Licensure of the American Medical Association held in Chicago on February 8, 9 and 10. On January 18 and 19, Dr. Keown attended the meeting of the Association of University Anesthesists held in New Orleans, Louisiana.

New Appointments

Dr. David G. Hall has been appointed assistant professor of obstetrics and gynecology effective July 1, 1958. Dr. Hall is now assistant instructor and resident physician in the Department of Obstetrics and Gynecology at the University of Virginia Hospital, Charlottesville, Virginia. Dr. Hall received his M.D. in 1953 from the University of Virginia School of Medicine.

Dr. Charles A. Worley and Dr. Paul A. Roberts of Sweet Springs, Missouri, have been added to the list of Preceptors in General Practice. Both Dr. Worley and Dr. Roberts received a B.S. in Medicine from the University of Missouri in 1950 and their M.D. in 1952 from Western Reserve University.

Gifts and Grants

Dr. Owen J. Koeppe, associate professor of biochemistry, has been awarded a grant by the National Science Foundation in the amount of $11,000. The grant is to be used for the study of "Mechanism of Action of Glyceraldehyde 3-Phosphate Dehydrogenases."

The University of Missouri School of Medicine has received an unrestricted gift of $25,920 from the Trustees of the National Fund for Medical Education. This gift will be used to support the teaching and research program in the University of Missouri School of Medicine.

WASHINGTON UNIVERSITY

Appointment

Dr. Eric Reiss, assistant professor of medicine and preventive medicine and American Cancer Society scholar in medicine at Washington University School of Medicine, has been appointed director of the Irene Walter Johnson Institute of Rehabilitation currently under construction at the medical center. In his new position, Dr. Reiss will plan the program and arrange for the staffing of the Institute. Activities of the Institute, which will be completed in the spring of 1959, will be coordinated through the department of preventive medicine and public health. Dr. Reiss, a graduate of the Medical College of Virginia in 1948, has conducted extensive research and written a number of articles on burns. Last year, in collaboration with Dr. C. P. Artz, he published a book on "The Treatment of Burns." A native of Vienna, Austria, Dr. Reiss formerly served as chief of the clinical division of the Surgical Research Unit at Brooke Army Medical Center, Ft. Sam Houston, Tex. He came to St. Louis in 1954 as assistant resident in medicine at the medical center. He has held a scholarship from the American Cancer Society for the last two years. The $725,000 Institute of Rehabilitation is named for the late Mrs. Irene Walter Johnson, principal donor of funds. The Institute will be located on Euclid Avenue between McMillan Hospital—Oscar Johnson Institute and the Washington University Clinics and will provide facilities for disabled persons in the St. Louis metropolitan area and an active research program relating to chronic disabilities.

Grants, Gifts

Grants totaling $337,912 have been awarded to Washington University School of Medicine by the U. S. Public Health Service. The largest new research grant, $50,881, was awarded to Dr. Carl F. Cori, professor and chairman of the Department of Biological Chemistry. Dr. James L. O'Leary, professor of neurology, received a $15,175 grant; Dr. Robert M. O'Neal, assistant professor of pathology, $14,190. Dr. Edward W. Dempsey, professor and chairman of the Department of Anatomy, has received a $12,468 grant to be used as a senior research fellowship for Dr. Sam L. Clark, Jr., assistant professor of anatomy. Other new research grant recipients include Dr. Milton Kern, instructor in clinical medicine, $10,925; Dr. David Goldring, associate professor of pediatrics, $8,802; Dr. Sarah Luse, associate professor of pathology, $8,500; Dr. George R. Drysdale, assistant professor of biological chemistry, $8,330; Dr. Carl G. Harford, associate professor of medicine, $8,277; and Dr. Bernard Shore, instructor in physiology, $8,274. A renewal grant of $50,000 for scholarships and fellowships for medical students was awarded, as well as a grant of $5,184 for student summer research fellowships. Renewal research grants were also awarded to Dr. Carl A. Moyer, Bixby professor and chairman of the Department of Surgery, $16,732; Dr. Sidney F. Velick, associate professor of biological chemistry, $13,800; Dr. Arthur Kornberg, professor and chairman of the Department of Microbiology, $10,891; Dr. W. Stanley Hartroft, Mallinckrodt professor and chairman of the Department of Pathology, $9,508; Dr. Patricia O'Neal, assistant professor of psychiatry, $9,447; Dr. Philipp Strittmatter, assistant professor of biological chemistry, $5,750; Dr. Robert D. Lange, assistant professor of medicine, $4,639; and Dr. Margaret G. Smith, professor of pathology, $3,527. Research training grants of $35,812 and $14,094 were awarded to Dr. Dempsey and Dr. Hartroft, respectively. Dr. Neal S. Bricker, assistant professor of medicine and of preventive medicine, received a supplemental grant of $6,820; Dr. Bernard A. Bercu, assistant professor of medicine, $4,916. Supply grants of $500 were awarded Dr. Moyer and Dr. Carl V. Moore, Busch professor and chairman of the Department of Medicine.

Quarterly payment on two research grants from the United Cerebral Palsy Association of Greater St. Louis was received recently by Washington University School of Medicine. A $17,834 grant supports the research of Dr. John A. Stern, research associate in medical psychology, and Dr. George A. Ulett, professor of psychiatry. A grant of $12,261 supports the work of Dr. Eli Robins, associate professor of psychiatry.

Frank Ackerman has given the Child Evaluation Clinic of the Medical School the $1000 which he received as the cash part of the 1957 Freund Youth Service Award. Mr. Ackerman received the award, which also included a citation, for his leadership in developing and implementing programs for handicapped children. The money will be used to further the work of the Child Evaluation Clinic, which Mr. Ackerman was instrumental in founding and of which he is board chairman. The clinic, located in Renard Hospital at the Medical Center, is a diagnostic and therapeutic center for retarded children and their parents. It has served approximately 600 children and their parents since it was established two years ago. Dr. Bettye M. Caldwell is the clinic director.

Faculty Members Honored

Three medical school faculty members were among honorees at Washington University Founder's Day ceremonies Friday, Feb. 21. They were Dr. A. Norman Arneson, professor of clinical obstetrics and gynecology and associate professor of clinical radiology; Dr. William B. Kountz, assistant professor of clinical medicine, and Dr. Alexis F. Hartmann, professor of pediatrics. Dr. Arneson, a 1928 graduate of the School of Medicine, and Dr. Kountz, who received his medical degree in 1926, were among 13 honored as outstanding Washington University alumni. Dr. Hartmann was among five long-time members of the university faculty honored.

Dr. Robert J. Terry, professor emeritus of anatomy at Washington University School of Medicine, observed his 87th birthday January 24. During the morning, associates honored him with informal congratulatory visits to his office in the Medical School. Dr. Terry was graduated from the Missouri Medical College, forerunner of Washington University School of Medicine in 1895. He joined the university faculty after graduation and became head of the department of anatomy in 1900, a position he held until his retirement from teaching in 1941. Dr. Terry, who introduced reforms in the teaching of human anatomy and presented these reforms in a book published in 1929, is still active in research.

Lectures, Meetings

Dr. Emmanuel C. Amoroso, professor of physiology at the Royal Veterinary College, University of London, delivered the annual Leo Loeb Lecture Thursday, March 6, in the David P. Wohl Jr. Memorial Hospital auditorium. The lecture is sponsored by Mu Chapter, Phi Beta Pi medical fraternity at Washington University School of Medicine. Dr. Amoroso, whose work since 1945 has been concentrated on the structure and function of the placenta and the physiology of reproduction, discussed "The Endocrinological Versatility of the Placenta." He is the author of the chapter on the placenta in the 1952 edition of "Marshall's Physiology of Reproduction." During a 1954 visit to the United States at the invitation of the Josiah Macy, Jr. Foundation, New York, Dr. Amoroso was appointed visiting professor of anatomy at Washington University School of Medicine, and he also visited the school last April. In 1957 he was elected to the Royal Society of Great Britain. The March 6 lecture was the twenty-third in an annual series honoring Dr. Leo Loeb, professor emeritus of pathology at Washington University School of Medicine. Dr. Loeb, who retired in 1937, is 88 and continues his research activities in his home in Clayton.

Dr. Walter Putschar, chief pathologist, Charleston General Hospital, Charleston, W. Va., and consultant to the Armed Forces Institute of Pathology, Washington, D. C., delivered an M.E.N.D. lecture March 3 in David P. Wohl Jr. Memorial Hospital auditorium. The lecture was sponsored by the Medical Education for National Defense group at Washington University School of Medicine. Dr. Putschar, an authority on the pathology of bones, discussed "The Pathology of Traumatic Lesions of the Spine Including Intervertebral Discs."

The Department of Otolaryngology of Washington University School of Medicine held the third annual alumni meeting March 6 and March 7 in Elliot Auditorium of McMillan Hospital-Oscar Johnson Institute. Dr. Theodore E. Walsh, professor and chairman of the department, presided. Guest speakers were Dr. Kenneth M. Day, professor of otology, University of Pittsburgh; Dr. Henry L. Williams, professor of otology and rhinology, Mayo Foundation Graduate School, Rochester, Minn.; and Dr. Paul H. Holinger, professor of otolaryngology, St. Luke's Hospital, Chicago. Addresses were also given by Dr. Walsh and by Dr. S. Richard Silverman, director of the Central Institute for the Deaf and professor of audiology in otolaryngology at Washington University.

Visitor

Dr. M. T. Jenkins, professor of anesthesiology at Southwestern Medical School, University of Texas, Dallas, and chief of anesthesiology at Parkland Memorial Hospital, Dallas, was a guest of the division of anesthesiology in the department of surgery at Washington University School of Medicine on February 18 and 19. Dr. Jenkins discussed "Respiratory Problems in Children" and "Fat Embolization" at meetings of medical school staff members and students, and was lecturer at a dinner meeting of the St. Louis Society of Anesthesiology.

SAINT LOUIS UNIVERSITY

Grants

The National Fund for Medical Education recently awarded the Saint Louis University School of Medicine $45,420 in support of its institutional budget.

Dr. Ralph A. Kinsella, Jr., associate professor of internal medicine, has been awarded a $19,750 grant renewal by the United States Public Health Service for studies of the metabolism of hormones of newborn babies. His studies involve the analytical chemical aspects of the newborn's hormonal metabolism and the important differences between the hormones of the mother and the baby. Dr. Nai-Hsuan Shen and Faith Francis, research associates in medicine, are working with Dr. Kinsella on the research problem.

Talks and Trips

Dr. C. Rollins Hanlon, director, Department of Surgery, took office as President of the Society of Surgeons at a meeting held in Boston, Mass., February 12.

Dr. Francis X. Paletta, assistant professor of clinical surgery, attended the American Society for Hand Surgery conference and the meeting of the Webster Society in New York January 31 to February 1. Dr. Paletta spoke on "Plastic Surgery" before the Webster Society.

Dr. Jerome P. Webster, professor emeritus of clinical surgery, College of Physicians and Surgeons, Columbia University, New York, delivered the Fourth Annual Albert Kuntz Lecture sponsored by the Phi Chi Medical Fraternity of the Saint Louis University School of Medicine February 20. Dr. Webster, a noted plastic surgeon, spoke on "The Scope of Plastic Surgery."

Dr. Robert Dean Mattis, associate professor of clinical ophthalmology and executive secretary of the department, attended a symposium on uveitis at the Academy of Ophthalmology meeting in New Orleans February 22 to 28.

Dr. R. Walter Schlesinger, director of the Department of Microbiology, and Dr. Valentin Bonifas, research associate, attended a symposium titled "Perceptive in Virology" in New York City February 24 and 25. The symposium was held in honor of Dr. Gustav Stern, a veterinarian scientist at Rutgers University Agricultural Station. The symposium was attended by one hundred virologists from all over the world.

Dr. Ralph Strength, assistant professor of biochemistry, spoke on the successful purification of betaine aldehyde before the medical school faculty seminar January 23. Dr. Vallee L. Willman, instructor in surgery, discussed open heart surgery.

Dr. William A. Knight, Jr., associate professor of internal medicine, spoke before the Veterans Administration in Oklahoma City, Oklahoma, February 17. The title of his lecture was "Pancreatic Profile, Its Value and Determination of Pancreatic Function and Disease." He also participated in a panel discussion on "Ulcerative Colitis." The meeting was a V.A. Hospital area conference of the chiefs of medical service. Dr. Knight is an area consultant for the Veterans Administration. Also attending the meeting was Dr. Joseph B. Vacca, resident in internal medicine. Drs. Knight and Vacca also attended the Regional Meeting of the American College of Physicians in Columbia, Mo., February 15.

The Department of Obstetrics and Gynecology presented a symposium on "Carcinoma of the Female Pelvis" on February 13 in observance of Firmin Desloge Hospital's Jubilee year. Six experts on cancer participated in the program which was attended by two hundred obstetricians and gynecologists. Participants included: Dr. Herbert E. Schmidtz, professor of obstetrics and gynecology, Loyola University School of Medicine, Chicago; Dr. Willis E. Brown, professor of obstetrics and gynecology; Dr. John L. McKelvey, professor of obstetrics and gynecology, University of Minnesota School of Medicine; Dr. Franklin L. Payne, professor of obstetrics and gynecology, University of Pennsylvania School of Medicine, Philadelphia, Pa.; Dr. Willard M. Allen, professor of obstetrics and gynecology, Washington University School of Medicine, St. Louis, and Dr. Allan C. Barnes, professor of gynecology, Western Reserve University, School of Medicine, Cleveland, Ohio. Dr. Joseph A. Hardy, Jr., professor of obstetrics and gynecology, Saint Louis University School of Medicine moderated the session.

FIRMIN DESLOGE HOSPITAL SPONSORS PROGRAMS

Members of the Missouri State Medical Association are invited to attend a one day scientific session to be presented by the Department of Orthopedic Surgery in observance of the Twenty-Fifth Anniversary of Firmin Desloge Hospital, main teaching hospital of the Saint Louis University School of Medicine. The program will be presented in Miller Hall of the Hospital, April 28. It is the fourth in a series of ten programs being sponsored by the various departments of the School of Medicine throughout the hospital's Jubilee year.

The program will open with a discussion on Cerebral Palsy to be presented by Dr. D. Elliott O'Reilly, senior instructor in orthopedic surgery, and Dr. Peter G. Danis, professor of clinical pediatrics, and staff at 10:00 a.m. The panel will discuss the organization of a treatment center and the results of treatment, operative and nonoperative.

Dr. Ralph K. Earp, assistant professor of clinical orthopedic surgery, will lecture on "Scoliosis," presenting modern concepts of treatment and results of operative treatment over the last 10 years at 11:00 a.m. Case presentations from Desloge Hospital and Glennon Memorial Hospital for Children will be made by the Saint Louis University School of Medicine staff at 12:00 noon.

The afternoon program will include a lecture on

"Osteoarthritis of the Spine" by Dr. Maurice B. Roche, assistant professor of clinical orthopedic surgery, and a presentation on "Congenital Dislocation of Hip" by Dr. Robert M. O'Brien, chairman of the Department of Orthopedic Surgery, and Dr. Jack C. Tippett, resident in orthopedic surgery. An out of town speaker will be announced at a later date. Luncheon at Desloge will be provided free of charge.

Six other scientific presentations planned for the Jubilee year include: Pathology, May 16; Neurology and Psychiatry, September 8; Surgery, September 17; Urology, September 18; Pediatrics, October 15-16, and Inter-Departmental Program, November 19.

Reservations for any of the forthcoming sessions may be made by writing to: Dr. William H. Vogt, Jr., Chairman, Firmin Desloge Hospital Jubilee Committee, 1325 S. Grand, Saint Louis 4, Mo.

Bishop Was Wrong

(Continued from page 350)

ic illnesses. We pay the same hospital expenses as Artie. No doctor receives one penny of the money his patients pay for hospitalization.

"Bishop next charges that Artie's wife was neglected while in the hospital. 'Artie rang the black buzzer on her pillow. No doctor came.' Surely Mr. Bishop knows that patients' call signals do not summon doctors and why.

"'Artie hasn't gotten a bill for the surgery yet. He will. It can range anywhere from $200 to $750. The surgeon can charge whatever he pleases.' This is not true. A surgeon gets his patients from referring doctors who believe him to be a good surgeon and he of necessity takes the poor with the rich if he is to retain this doctor's good will.

"A reputation for overcharging travels fast and such a surgeon finds himself with a diminishing practice of discontented patients and a date with the grievance committee of his local medical society.

"If Artie is strapped, he may not receive a bill. At most, it will likely not be above $350 and could be less. It should cover a three-hour operation, twice daily visits by the doctor while the patient is hospitalized, and in most instances three or more office calls after surgery. It need not be paid all at once.

"Bishop's imagination has worked feverishly up to the next to last paragraph when it fails completely! 'I don't know how it is economically possible for any institution to do a near capacity business and still lose money,' he says, referring to hospitals. (Mr. Bishop confuses the hospital with doctor throughout.)

"I have in my hand a report from a St. Louis hospital which says that this hospital supplied 27,086 patient days of free hospital care during 1957 at a cost of $700,000. Other local hospitals did an equal share.

"Mr. Bishop states 'They (doctors) spend less and less time on a fee-free basis in clinics.' There are still many clinics staffed by doctors serving without fee. Doctors supplied all of the medical care without fee for the 27,086 patient days of free hospital care mentioned above. Classes for student nurses, medical students and resident staff are conducted without pay. Can Mr. Bishop say as much for his fee-free service to humanity?

"The last paragraph of this column contains a strange statement about hospital practice. 'The patients who are not Blue Cross members are frequently not permitted to be discharged until some arrangement has been made for the hospital bills to be paid.' Is he charging that patients are held illegally, against their wills as prisoners with the amount of the hospital bill as ransom? If so, there is quick legal recourse.

"Most doctors I know are honest and ethical and proud of their competence while being humble about the many things we understand so little. Shouldn't a journalist have the same qualities?"

BOOKS RECEIVED

CLINICAL TOXICOLOGY OF COMMERCIAL PRODUCTS: ACUTE POISONING (Home & Farm), by Marion N. Gleason, Research Assistant in Pharmacology, School of Medicine and Dentistry, The University of Rochester, Rochester, New York; Robert E. Gosselin, M.D., Ph.D., Professor of Pharmacology, Dartmouth Medi-

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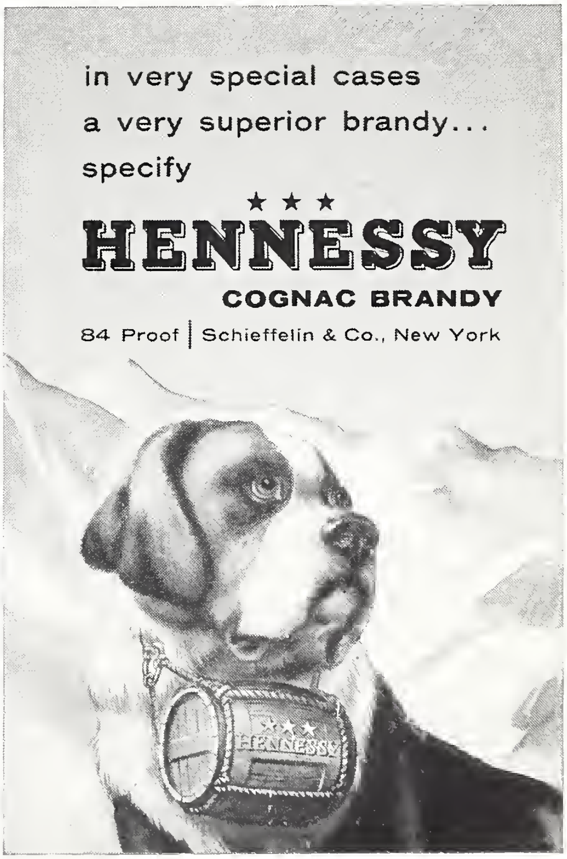

cal School, Hanover, New Hampshire; Harold C. Hodge, Ph.D., D.Sc., Professor of Pharmacology and Toxicology, School of Medicine and Dentistry, The University of Rochester, Rochester, New York. The Williams & Wilkins Co., Baltimore, 1957. Price $16.00.

Drugs—Their Nature, Action and Use, by Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry; Consulting Physician, Milwaukee County General Hospital and Columbia Hospital. W. B. Saunders Company, Philadelphia and London, 1958. Price $15.00.

Allergy in Pediatric Practice, by William B. Sherman, M.D., Associate Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons; Associate Attending Physician, Presbyterian Hospital; Attending Physican, Roosevelt Hospital, New York, N. Y.; and Walter R. Kessler, M.D., Ph.D., Instructor in Pediatrics, Columbia University College of Physicians and Surgeons; Assistant Pediatrician, Babies Hospital; Assistant Attending Physician, Roosevelt Hospital, New York, N. Y. Illustrated. The C. V. Mosby Company, St. Louis, 1957. Price $9.25.

Stedman's Medical Dictionary of Words Used in Medicine With Their Derivations and Pronunciation Including Dental, Veterinary, Chemical, Botanical, and Other Special Terms; Anatomical Tables of Titles in General Use, the Terms Sanctioned by the Basle Anatomical Convention; the New British Anatomical Nomenclature; Nomina Anatomica, Revised by the Fifth Internal Nomenclature Congress of Anatomists; Pharmaceutical Preparations Official in the U. S. and British Pharmacopoeias or Contained in the National Formulary; Biographical Sketches of Figures in the History of Medicine. Nineteenth Revised Edition, With Etymologic and Orthographic Rules, edited by Norman Burke Taylor, V.D., M.D., University of Western Ontario. In Collaboration With Lt. Col. Allen Ellsworth Taylor, D.S.O., M.A. Classical Editor. Baltimore, The Williams & Wilkins Company, 1957. Price $12.50.

Orthopedics for the General Practitioner, by William E. Kenny, M.D., Orthopedic Surgeon, Truesdale Hospital; Medical Director, Cerebral Palsy Training Center, Fall River, Mass.; and Carroll B. Larson, M.D., Professor of Orthopedic Surgery and Chairman of Department of Orthopedic Surgery, State University of Iowa, Iowa City, Iowa. With 180 Illustrations. St. Louis, The C. V. Mosby Company, 1957. Price $11.50.

Antiseptics, Disinfectants, Fungicides, and Chemical and Physical Sterilization, edited by George F. Reddish, Ph.D., Sc.D. (Hon). St. Louis College of Pharmacy and Allied Sciences, and Lambert-Hudnut Division of Warner-Lambert Pharmaceutical Company, St. Louis. Second Edition, thoroughly revised, 67 Illustrations and 134 Tables. Lea & Febiger, Philadelphia, 1957. Price $15.00.

An Atlas of Cardiac Surgery, prepared by Jorge A. Rodriguez, M.D., Assistant Professor of Surgical Anatomy and Research Associate, Department of Surgery, University of Mississippi Medical School. W. B. Saunders Company, Philadelphia-London, 1957. Price $18.00.

The Relation of Psychiatry to Pharmacology, by Abraham Wikler, M.D., National Institute of Mental Health, Addiction Research Center, Department of Health, Education, and Welfare, Public Health Service Hospital, Lexington, Kentucky. Published for the American Society for Pharmacology and Experimental Therapeutics by The Williams & Wilkins Company, Baltimore 2, Md., 1957. Price $4.00.

Modern Perinatal Care, by Leslie V. Dill, M.D., Associate Clinical Professor, Obstetrics and Gynecology, Georgetown University School of Medicine; Consultant, Obstetrics and Gynecology, Army Medical School and Walter Reed General Hospital; Staff Member, Obstetrics and Gynecology, Providence Hospital, Washington, D. C. Appleton-Century-Crofts, Inc., New York, 1957. Price $6.50.

Science Looks at Smoking, A New Inquiry Into the Effects of Smoking on Your Health, by Eric Northrup. Introduction by Dr. Harry S. N. Greene, Chairman, Department of Pathology, Yale University. Coward-McCann, Inc., New York, 1957. Price $3.00.

TUBERCULOSIS ABSTRACT

Protective Isolation of the Tuberculous

Compulsory isolation of the tuberculosis patient was considered at a Conference on Protective Isolation of the Tuberculous, held at Denver, Colo., January 22-23, 1957. The recalcitrant tuberculous patient and methods of dealing with him have been subjects of increasing concern recently. Attending the meeting were interested persons from many fields including officials from state and national agencies, tuberculosis control officers, tuberculosis hospital directors, private practitioners, psychiatrists, sociologists, social workers, lawyers, nurses, and health educators.

ARGUMENTS PRO

The case for compulsory hospitalization was led by Dr. Edward Kupka, Chief, Tuberculosis Control, California State Department of Public Health. These arguments were offered:

1. Tuberculosis is a communicable disease spread from person to person. Its spread can be prevented by the identification and isolation of all grossly infectious persons.

2. The civil liberties of a citizen do not include the right to endanger the health and welfare of other citizens.

3. Compulsory isolation serves as a deterrent to

Issued by the National Tuberculosis Association.
Conference Report, Public Health Reports, September, 1957.

other individuals with tuberculosis who might otherwise fail to cooperate.

4. The truly recalcitrant patient is both physically and mentally ill and at times needs the support of official action to help take necessary precautions against infecting others. Commitment on psychiatric grounds is indicated for some of these patients.

5. The really recalcitrant patient is probably more dangerous to the public health than is the nonrecalcitrant known case. As the number of infectious tuberculous patients decreases, each recalcitrant becomes relatively more important.

6. There is a small hard core of socially irresponsible persons who, in spite of a concerted psychosocial attack, will expose their fellow men to infection unless restrained.

7. Basically democratic administration of isolation laws, like all laws, is a fair general assumption in the United States today.

8. Alternatives consist mainly in preventive measures which are too costly to be practical.

9. The program has worked well in those States with both a good over-all tuberculosis control program and good facilities for compulsory isolation.

ARGUMENTS CON

Dr. Sidney Dressler, medical director, National Jewish Hospital, Denver, led the case against compulsory hospitalization. His team set forth the following arguments:

1. Recalcitrance is not a crime and may reflect psychosocial disease in the patient or the failure of the professional staff to deal with this disorder, or both. Some of these problems result from improper handling by health officials.

2. Recalcitrance is usually preventable by proper medical, social, and psychiatric care.

3. Recalcitrants represent such a small fraction of the potential source of infection that the expenditure of time, effort, and money necessary for isolating them is not justified.

4. Enforced isolation as a rule does not make recalcitrant patients cooperative and, in fact, may drive tuberculosis underground and tend to create more recalcitrants.

5. There are adequate alternatives to enforced isolation.

6. Tuberculosis is only mildly contagious.

7. There is no evidence to show that compulsory isolation has succeeded in preventing additional cases or that incarceration has favorably influenced the infection rates in a community.

8. Since many of the patients who would be prosecuted are unable to defend themselves, such laws could easily lead to abuse by authorities. Civil liberties may be unnecessarily lost or curtailed.

9. Tuberculosis control officials have ample tools for protecting the environment from the recalcitant. The unknown tuborculosis cases are the main hazard. The institution of forcible hospitalization would add no more to tuberculosis control than would more vigorous application of those methods now in use.

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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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Curiosa et Trivia

William B. McCunniff, M.D.

To those seeking aid and comfort for a revolting affliction, an Irish saint, St. Fiacre, became the patron of those with hemorrhoids in the sixth century.

Things have gone up! A 1907 survey of Texas (of all places!) physicians revealed an average annual income of $1,873. The highest medical income in the state was a reported $40,000.

Western Union's largest new private wire system installed in 1957 was for Blue Cross. The system interconnects Blue Cross offices in eighty-six cities, including five in Canada.

There is no synonym for one of the commonest medical terms: lesion. It is derived from the Latin *laesio*, a hurt or injury.

The first Director of Health of Ecuador, Dr. Bolivar Jones Lloyd, was an American loaned to that country in 1906 by the U. S. Public Health Service to fight yellow fever and bubonic plague.

Nobody's safe any more—even harpooned whales are given antibiotics to slow the decay of the meat!

Capsule Clinics

I. A. Wien, M.D.

- In the differential diagnosis of a palpable abdominal mass one must consider the following conditions: neuroblastoma, Wilm's tumor, hydronephrosis, polycystic kidney, lymphosarcoma, mesenteric cyst, and renal vein thrombosis, particularlarly in infants and children. Hansman, C. F.: J. Pediat. **51** (Dectmber) 1957.
- The best way to control bleeding in general in a hemophiliac is to increase the more or less decreased level of the antihemophilic factor in the blood by transfusion of fresh blood. DeBruijune, J. I., et al.: J. Pediat. **51** (December) 1957.
- Antibiotics are not an unmixed blessing in the managing of ear problems in children. They must not be used as a substitute for myringotomy since permanent damage of hearing may result. Crook, W. G.: J. Tennessee M. A. **51** (February) 1958.

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Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

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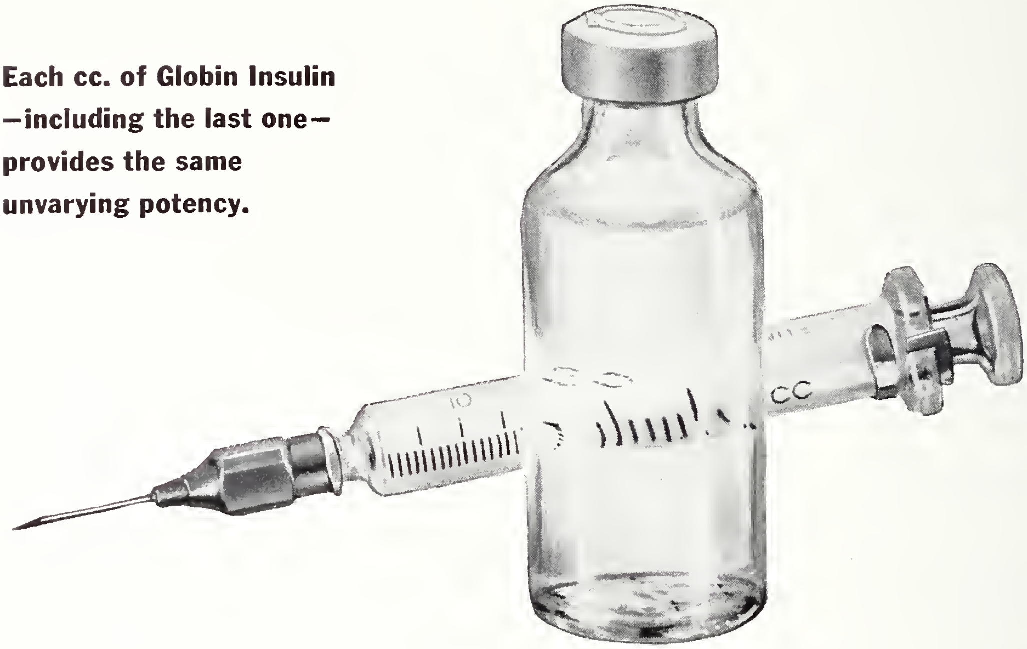

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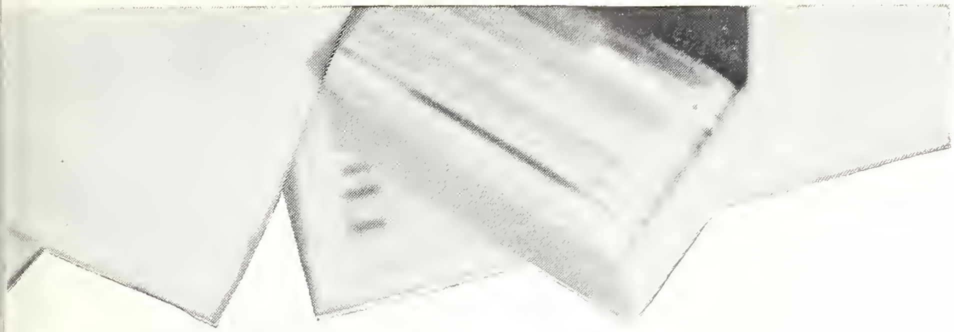

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v of the beneficial re- served when antacids liets were used concom- prednisone and predni- feel that these measures employed prophylacti- set any gastrointestinal ."—Dordick, J. R. *et al.*: J. Med. 57:2049 (June

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

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WASHINGTON

Despite the nation's concern with missiles and Summit meetings, the number of bills modeled after the Forand bill grows in Congress. Senator Morse (D., Ore.) and Representative Moulder, Missouri Democrat, are two of the latest to climb aboard the social legislation bandwagon.

Whether it is going anyplace this year, remains to be seen. This is an election year and the bills of that type now total about ten. With 13 million social security recipients who would benefit immediately and the strong backing of the AFL-CIO, stopping such legislation will take a determined effort.

There are a rash of other bills also dealing with the problems of the aged. Many of the supporters would go far beyond Mr. Forand's request for free hospitalization and surgical care for persons entitled to social security coverage.

Mrs. Edith Green, Democratic representative from Oregon, feels Uncle Sam also should give the same benefits to the elderly people NOT eligible for social security. Her own measure, HR 649, would create a Bureau of Older Persons in the Department of Health, Education and Welfare (HEW). Other lawmakers also have introduced similar legislation.

Committee hearings were expected to start early this month on many of the social legislation measures as Congress entered the last lap of the 1958 session.

Just what effect the current recession will have is questionable.

But with the serious talk of cutting income taxes, it certainly looks as if Congress would pick a poor time to increase the social security tax nearly 75 per cent—which is what the Forand bill would do. It is estimated it would bring in an additional 2 billion dollars.

Four of the major organizations in the medical and health field have banded together to set up a Joint Council to study the problem of the aged and come up with an answer to measures such as the Forand bill. The participating members of the Joint Council to Improve Health Care of the Aged are the American Medical Association, American Hospital Association, American Dental Association and American Nursing Home Association.

The Joint Council plans to work with the health insurance industry and Blue Shield-Blue Cross to expand and improve voluntary coverage for the older folks.

It also is expected the Joint Council will endorse a bill in Congress calling for a White House Conference on Health Care of the Aged in June, 1960. The bill was introduced by Rep. Fogarty (D., R. I.).

Another of Mr. Fogarty's recommendations undoubtedly will get a careful look by the Joint Council. He would like to see the Hill-Burton hospital construction act broadened to provide for construction of custodial facilities for the aged. The Hill-Burton Act expires in June, 1959, but is expected to be extended at this session.

The Rhode Island Democrat also favors enlarging the staffs of HEW and Labor Department that deal with the problems of the aged. In his position as chairman of the important House Appropriations subcommittee on the HEW's budget, he is in a key position.

Also in the field of the aged, the VA has established a new division in its department of medicine and surgery in Washington. It will coordinate about 2,000 studies of disorders of the aged now under way in VA hospitals.

As an immediate anti-recession move, the HEW plans to pass out more construction money before the end of the fiscal year, June 30, than originally planned. The original commitment schedule of 670 million dollars has been upped to 800 million or more. It will go for medical research facilities, hospitals and water treatment plants. It merely means faster allocation, not additional appropriations.

Meanwhile, the Senate weighs the pros and cons of the 2-billion-dollar loan bill for public works designed to prime the economic pump. Proponents say its effects would not be noticed until next year and urge an immediate tax slash.

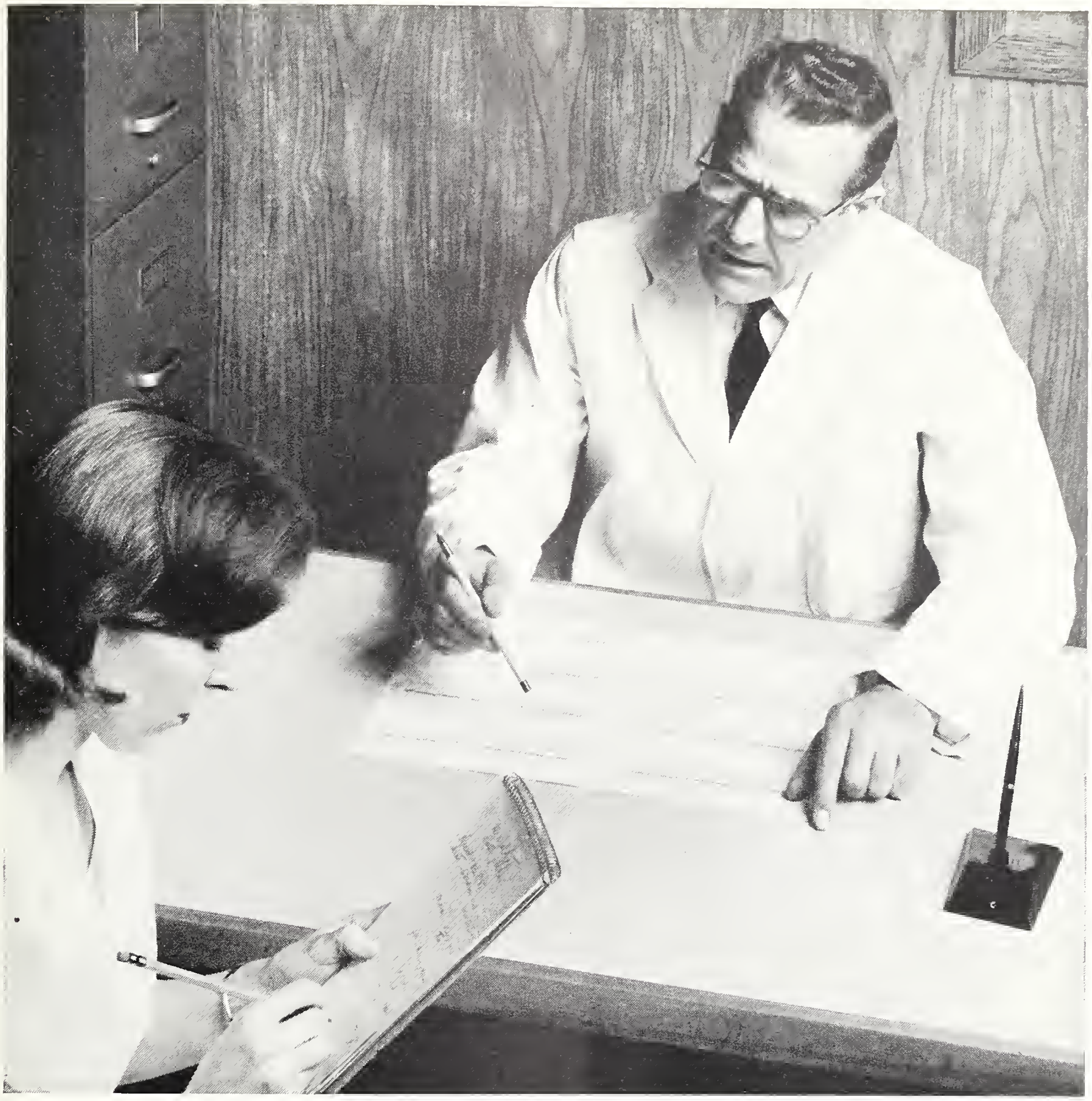
The Committee for Economic Development (CED) has called on Congress for an immediate 20 per cent cut in individual income taxes if the slump continues. The non-profit, non-political group supported by industry explained such a cut would stimulate business activity and hence tax collections.

The Public Health Service has warned there could be serious polio epidemics this year unless vaccination programs are speeded up. Should 1958 turn out to be a bad year like 1952, then 300,000 cases could occur among the unprotected, Surgeon General Burney warned.

A new Census Bureau survey discloses that 48.5 million persons have had no shots, many of them between 20 and 40 years old. One encouraging note, the survey showed 42.5 million Americans had had three shots.

Whether to give that fourth shot or not, still depends on the judgment of the individual physician.

It now looks doubtful that Congress is going to get around this session to setting up the machinery whereby an ailing president is replaced by his vice-president.



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Missouri Combats Stream Pollution

Until just a few years ago, most Missourians lived on farms and in small towns. There were not so many factories, and most of them were small. Water was not a major problem then; even the small streams could take care of the pollution load they received.

As long as farmers and small-town citizens were careful not to put the privy where it drained toward the well, kept the cattle away from springs used for drinking, and boiled their drinking water during epidemics, they got along. So did the rivers.

But now, three out of five Missourians live in cities. Industries have grown and are still growing. These cities and industries pour vast amounts of wastes into their waterways.

One town's sewer feeds the next town's intake pipes all the way down the river. If a town happened to be near the mouth of the river, and the towns above discharge raw sewage into the river, many Missourians found themselves drinking everything that went down the drains of the city upstream and its sewer systems—used water from toilets, bathtubs and sinks, washings from restaurants and laundries, hospitals, hotels, and mortuaries.

Back in 1900, the City of Chicago, in order to relieve their contamination problems, dug a huge canal to empty all of Chicago's sewage into the headwaters of the Illinois, thence down the Mississippi. However, St. Louis, lying forty-three miles below the mouth of the Illinois River, protested having what it described as "1,500 tons of poisonous filth daily" discharged into the Mississippi. Suit was brought in the United States Supreme Court to restrain Chicago from injuring St. Louis' water supply.

After six years and 8,000 printed pages of testimony, Justice Oliver Wendell Holmes rendered the Court's verdict. St. Louis had not proved its charges of injury, and the case was dismissed.

By today's judgment, Chicago may have got off too easily. But sewage treatment was still largely theory in early 1900's, and the burden of legal proof was on the plaintiff. St. Louis, as well as all other cities up and down the Missouri and Mississippi, discharged sewage into the river. It was guilty of the same practice for which it found fault with Chicago.

Where does the responsibility lie for cleaning up our water? The answer is plain and simple. Every city and town, and every industry, is responsible for cleaning up the pollution it creates.

Missourians are beginning to realize that water does not spring from the faucet, or even from the local waterworks, and when it disappears down the drain, it does not thereby disappear.

Water, and the importance of keeping it clean, is the topic today wherever groups of civic-minded Missourians gather. The importance of water, clean water, to the American economy has become more apparent in recent years. Now the Division of Health of Missouri is stressing the need of sewage treatment as a means of abating stream pollution.

Clean, safe water is an essential ingredient to Missouri's water resource development program. Clean water is as necessary as dams to store water, channels to make our streams navigable, and contour farming to prevent erosion.

Slowly at first, but more rapidly now that the seriousness of the problem is clear, people of Missouri are organizing to fight pollution. The pioneering work has been done by the Missouri Division of Health, and legislation has been passed for authority to appoint a State Pollution Board to carry on programs of research, education and enforcement.

It is seldom necessary for the Division of Health to rely upon legal action in obtaining treatment of municipal or industrial wastes. The following method of obtaining corrections has proved successful in many instances: Following a thorough field investigation, a written report is submitted to municipal or industrial officials outlining the problem and recommending steps for elimination of defects. When the officials have indicated a willingness to cooperate, the district or county public health engineer discusses the problem with civic groups. The health educator works with community leaders in organizing the project and further assists by furnishing movies and press material. Effective use is made of promotional material supplied by commercial and financial interests, outlining the diseases caused by insanitary conditions, the fundamentals of sewage treatment, and the desirability of an adequate sewerage system, immediately before an election is called. It is estimated that this procedure will be followed in fifty or more cities during the next two years.

Raw sewage lagoon studies are under way at Fayette and Rolla, through cooperative agreement with the Public Health Service and the City

(Continued on page 466)

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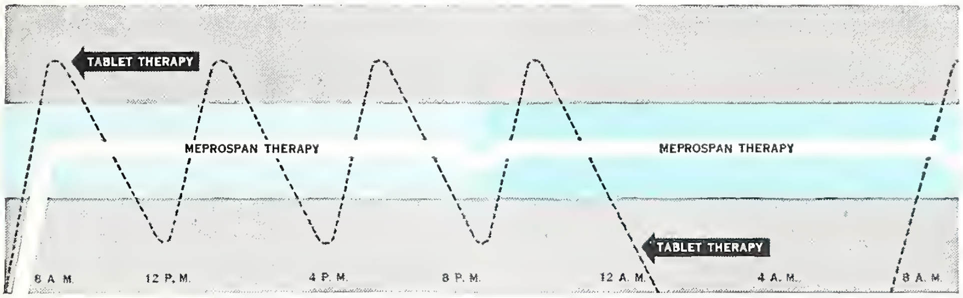

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

St. Louis Academy to Hold 3rd Annual Spring Symposium

The Third Annual Spring Scientific Symposium of the St. Louis Academy of General Practice will be held on Sunday, May 4, at the Chase Hotel. This is an annual event which combines an educational opportunity with social enjoyment and has proved to be most popular with the physicians in the Greater St. Louis area. As in the past, entertainment for the ladies will be provided in the afternoon.

Registration for both the doctors and the ladies will begin at 1:00 p.m. on the Starlight Roof.

The first of four scientific lectures will begin at 1:30. Speakers of national and international renown will include Philip Thorek, M.D., University of Illinois, Chicago, who wil talk on "Differential Diagnosis of the Acute Abdomen"; Arnold S. Jackson, M.D., Jackson Clinic, Madison, Wisconsin, who will discuss "Diagnosis and Treatment of Thyroid Diseases"; George E. Thoma, M.D., Radioisotopes Laboratory, St. Louis University, who will evaluate the "Current Clinical Uses of Radioisotopes"; and Warren M. Lonergan, M.D., Institute of Clinical Medicine, Washington University, who will speak on "The Clinical Application of Gastrointestinal Cytology."

The Spring Symposium affords AAGP members an opportunity to gain four hours of Category I Medical Study Credit.

After the scientific sessions, at about 6 o'clock, the doctors will join the ladies for a cocktail hour which will be followed by a dinner.

A cordial invitation to attend this popular event is extended to all physicians in St. Louis and surrounding areas. Reservations can be made by sending a check ($6.00 per person) immediately to the St. Louis Academy of General Practice, 4 North Eighth Street, St. Louis 1, Mo.

Course in Geriatric Medicine

A course in "Geriatric Medicine and Its Relation to Medical Practice," to be presented at the Washington University School of Medicine, May 24 and 25, has been classified as acceptable for a maximum of 12½ hours of Category I postgraduate study credit. The course is sponsored by the St. Louis Academy of General Practice, the St. Louis Medical Society, the St. Louis County Medical Society, the Missouri State Medical Association, the Mental Health Association, the American Cancer Society, the Missouri Division and the St. Louis and St. Louis County units of the Missouri Heart Association, the Gerontological Research Foundation and the Arthritis and Rheumatism Foundation.

URGES CONGRESS CUT TAXES AND SPENDING TO CURE RECESSION

The Missouri Public Expenditure Survey has posed the following five searching questions to Missouri congressmen concerning the nation's recession. Arthur V. Burrowes, president of the privately-supported fact-finding bureau, suggests all Missourians seek the answers from their representatives and senators. The questions:

1. Aren't the large-scale Federal deficits now in prospect an open invitation to inflation?
2. How will greatly increase Federal spending—at levels now being proposed and discussed in Washington—affect the prospects for prudent tax reduction?
3. Won't the current Federal hand-out spending proposals result in further erosion of state and local government self-reliance?
4. Is the current emphasis on PWA and WPA-type public works programs a real cure for the recession?
5. Aren't pump-priming proposals endangering financial resources which may yet be needed to meet military necessities or emergencies?

"From what I have heard," Burrowes said, "many citizens are not happy with the turn of events in Washington. At first, all we heard was that billions had to be spent to catch up with Russia and its Sputniks. Then our satellites orbited. Since then all we have heard is that billions must be spent to cure a recession."

"It looks to me as if Congress is going back to the 'pump-priming' of the 1930's, with WPA's and all kinds of work projects," Burrowes said. "Those borrowed billions didn't solve unemployment and left us with a heritage of inflation from which we are still suffering.

"On the other hand, in the 1954 recession we cut both Federal spending and taxes and the result was three years of the greatest prosperity this nation has ever known. Why don't we learn?"

Burrowes said Missouri Public Expenditure Survey urges Congress to spend what is necessary for defense, to cut out less essential spending, to avoid inflationary deficits, and to cut taxes "as soon as we can really afford to do so."

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supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

references: 1. Strub, I. H.: Personal communication. 2. Ayd, F. J., Jr.: presented at Ohio Assembly of General Practice, 7th Annual Scientific Assembly, Columbus, September 18-19, 1957.

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Lieut. J. W. Johnson, Hayti, serving at Camp Pike is at home with his wife, who is in bad health. Washington University of St. Louis has decided to open the dental school to women students beginning with the academic year 1918-1919. Dr. J. H. Kennerly, dean of the faculty of Washington University Dental School, was elected president of the Dental Faculties of the Association of American Universities, at its meeting in Pittsburgh, Pa.

Dr. W. L. Wysong of Missouri City has recovered from an attack of smallpox and it is said has been properly and satisfactorily fumigated. The doctor seemed to be determined that his people should be protected and evidently forgot to vaccinate himself, so when the germs came along he took the disease. His was the only case in the community.

Reports of casualties among our troops in the war mention Dr. John F. Hardesty, a member of the St. Louis Medical Society, who enlisted in the Medical Reserve Corps in the summer of 1917. Another report speaks of death from wounds of Lieut. F. V. Frazier of the medical corps in France, and doubtless refers to Dr. Francis V. Frazier of Altamont, Mo. Dr. Frazier was a member of the Daviess County Medical Society and enlisted in the Medical Reserve Corps last summer.

The U. S. Public Health Service is greatly in need of the services of competent sanitarians, particularly medical officers, sanitary engineers and scientific assistants. Salaries vary from $1,800 to $2,500 per annum.

Audrain County has voted authority to issue bonds to the amount of $75,000 for the erection of a general hospital to be located in Mexico. This is the first county in the state to take the advantage of the law passed at the last session of the legislature authorizing any county to establish and maintain a public hospital by levying a tax and issuing bonds therefor. The members of Audrain County Medical Society were active in helping carry the election.

The Carroll County Medical Society met in the courthouse at Carrollton, March 13, 1918. The program consisted of reports of cases, followed by some interesting discussion. In order to bring out a full attendance it was decided to have a banquet at one of the near future meetings. Probably when a "good feed" is promised they will be there. The Clay County Medical Society met at the Snapp Hotel in Excelsior Springs, March 25, with a good attendance, Drs. Remley and James of Lawson visiting. Every member is loyal, and every man is there with the goods when called on. In this connection one may say that Dr. Woods of Smithville is so enthusiastic that he has paid his dues twice for this year. The regular meeting of the St. Louis County Medical Society was called to order at 3:45 p.m. by the president, Dr. Reynolds. Present were Drs. Carter, Dunavant, Jones, Pritchard, Reynolds, Westrup, Sutter, Brossard and Conway. A communication from the Massachusetts General Hospital offering a course of weekly clinical reports of cases from the institution to form a basis for study and discussion, was read by Dr. Carter, and on motion duly carried, the secretary was directed to remit $5.00 for the same.

TWENTY-FIVE YEARS AGO

St. James Hospital, St. James, was recently opened as a general hospital. The institution was originally built as a convalescent hospital but has been equipped and staffed for general hospital work, including roentgen ray laboratory and operating facilities. The institution is open to all reputable physicians.

The annual spring clinic of the St. Joseph Clinical Society was held in St. Joseph, April 19 and 20 with the Buchanan County Medical Society cooperating.

Ridge Farm, the country convalescent home of the St. Louis Childrens Hospital, was reopened April 3. The home was closed a year ago because of the curtailed revenue of the hospital.

The Boone County Medical Society met in McAlester Hall, Columbia, April 4, with a good attendance including visitors from St. Charles, Jefferson City and Moberly and the medical students from the University of Missouri.

The regular scientific session of the Buchanan County Medical Society was called to order by the president, Dr. W. H. Minton, St. Joseph, in the Missouri Methodist Hospital, April 5. A resolution was adopted instructing the secretary to accept dues for the remainder of the year as follows: $7.50 down and $3.75 every three months until paid. This action was taken because of the difficulty many of the members are meeting in their collections.

The Carter-Shannon County Medical Society

(Continued on page 462)

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Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

With honor and humility I have accepted this office which grants me the privilege, among many other things, of writing an article in this fine magazine. Realizing that I am not a journalist my reason for doing this must be that I am a person with a message. And I am a dedicated member of the Medical Auxiliary. I believe in Auxiliary work. I believe that we are answering a need in the world today. I believe that we, as Doctors' wives, are the windows through which the world looks at you our husbands. I believe that we have a great responsibility in helping to bring better public relations into this world.

Much of the public has not been kind to the men in the medical field in recent years and we must do all we can about it. It is through our Auxiliary program that we learn the line of activity that will best serve our husbands' loss of status in the eyes of the public. So please handle the problems of the Auxiliary in your locality with thought and with care. Give us your vote of confidence. Encourage your wife to be an active member of the Auxiliary.

I realize that most Doctors' wives are active, intelligent women and they have tremendous demands upon their time. All organizations seem to feel that we owe them a great deal of service. I have heard the expression that since we can afford household help we should give time and effort to community and service groups. And certainly we do want to carry our share of these programs.

However it is also true that all women can be active members of these other groups but only doctor's wives can be members of the Medical Auxiliary. It reminds me of the sign which says "we do not want all the business, we just want yours." It is just as true that we do not want all the women, we just want doctors' wives. So remember, Doctors, that all we ask is the opportunity to do the things which you feel will be helpful to your profession. At no time do we ever sponsor any program without your approval. Neither does the Auxiliary promote one branch of medicine or one specialty group nor any one doctor. Auxiliary works for benefits toward the whole medical profession and it is the only organization on earth whose sole interest is to aid the medical profession. So do encourage your wife to be an active, informed member of the local Auxiliary.

Missouri Medicine in Review

(Continued from page 460)

met in the office of Dr. Frank Hyde at Eminence, April 7. Dr. Hyde was elected chairman and Dr. W. T. Eudy, Eminence, secretary for the year 1933. Drs. J. C. B. Davis and F. N. Saville, Willow Springs, and Dr. H. Kirkendall, a dentist of Birch Tree, were visitors.

The St. Louis Medical Society met February 8 at the St. Louis County Hospital. Dr. Sam A. Bassett, Clayton, and Dr. K. Ellis Sherrill, St. Louis, were elected to active membership. Dr. F. W. Bailey, St. Louis, was a guest of the Society and presented an address on appendicitis entitled "Playing Favorites."

TEN YEARS AGO

Wallis Smith, M.D., Springfield, was elected President-Elect of the Missouri State Medical Association at its 90th Annual Session in St. Louis, March 14 to 17. He will serve in his present capacity until the next Annual Session when he will be installed as President. Dr. Smith brings to his new office much ability and experience in organized medicine. He has served the Association and the Green County Medical Society throughout his years of the practice of medicine and many times has proved his unfaltering interest in the betterment of medical practice and the health of the people.

Jesse E. Douglass, M.D., Webb City, was installed as president of the Missouri Trudeau Society at a meeting on March 14. Florence MacInnes, M.D., Kansas City, was elected president-elect.

Alvin J. Baer, M.D., Kansas City, recently was elected president-elect of the Kansas City Society of O.O.R.L. John C. Howard, Jr., M.D., was elected vice president.

W. Bryon Black, M.D., Kansas City, recently was elected president of the American Society of Ophthalmology and Otolaryngology Allergists.

Between July 18, 1947, and January 1, 1948, 15,600 veterans have been examined or treated by "home town physicians" who received $242,700 from the Veteran's Administration. "There were no complaints and no charges of any kind against any physician in the State of Missouri"—this on the authority of a top drawer representative of the Veterans Administration.

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The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 **ADJUST DOSAGE OF ALL MEDICATION**
The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

BENEFITS:

- improves and simplifies the management of hypertension
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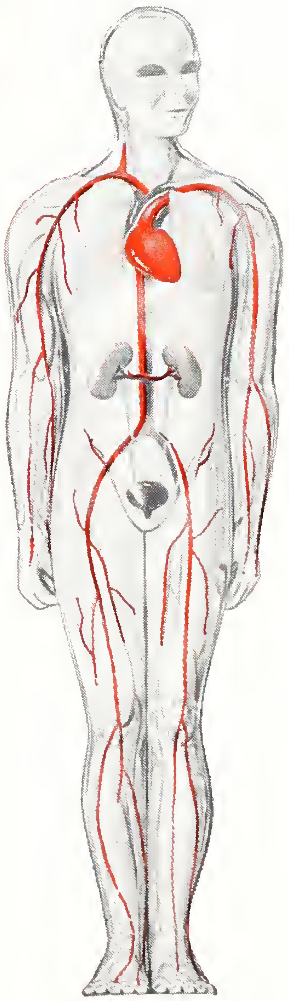

Committee on Laboratory Medicine

Exfoliative Cytology of the Cervix: A Useful Diagnostic Tool

Sixteen thousand American women die every year of uterine cancer. Early discovery and treatment will reduce this loss of life. The use of cytologic studies makes this possible. The procedure is simple and painless and it can be done in any doctor's office. The technic is based on the fact that neoplastic cells often can be detected in smears made from scraping the surface of a tissue containing a malignant growth, even before the growth can be seen grossly.

The staining and examination of the cells is usually done by a pathologist. The smears, if properly handled, can be sent through the mail. In this way specimens collected one day can be reported by the pathologist on the next day—even when his laboratory is in another town.

The pathologist reports whether the smear contains abnormal cells. If abnormal cells are found, the patient's physician must rule in or out the possibility of a cervical or endometrial carcinoma. This must be done even if the cervix appears normal. In such a case four biopsies are taken from the squamo-columnar junction, one from each quadrant of the cervix. Sometimes the biopsies are negative, but the cytologic studies continue to be positive. In this case the patient should be hospitalized and an annular biopsy or "cold knife conization" of the cervix should be carried out. Cautery is not used since this causes coagulation of the tissue, obscuring the histologic detail. Usually a cervical dilatation and uterine curettage is also done at the time of conization.

If a carcinoma is found in the cervical cone, the treatment depends upon whether the carcinoma is still limited to the area normally covered by epithelium (i.e. carcinoma in situ) or whether the carcinoma has spread beyond the confine of the surface epithelium (i.e. invasive).

Your pathologist will give instructions for collecting, fixing and mailing smears. Examinations on indigent patients will be done without charge.

Missouri Division of Health

(Continued from page 456)

of Fayette, and with the Missouri School of Mines. The studies of lagoons will be made for two and possibly three more years. The Division has granted the Missouri School of Mines at Rolla funds to study the effect of chemical additives to lagoons. The Fayette and Rolla studies are coordinated and should result in information which will be of great benefit to small midwestern municipalities as well as consulting engineers and public health officials.

Two research grants to the University of Missouri at Columbia have been made by the Division. One is for the purpose of studying individual or residential treatment facilities utilizing aeration, and a second is for the purpose of determining the characteristics and quality of filtered raw sewage sludge. These research grants will be continued through the next two years or until completed.

A yearly short course for sewage works operators is sponsored jointly by the Division of Health, the University of Missouri and the Missouri Water and Sewerage Conference. A voluntary licensing program for sewage plant operators is in effect and is expected to continue to expand during the next two years. The short course and licensing program is implemented by direct contact, supervision and instruction to sewage works operators in the plant for which they are responsible. A sewage works supervisor is now employed and employment of additional supervisors is anticipated.

Cities and towns throughout Missouri are solving their local problems. Most important of all, the citizens themselves are on the march. The people are speaking out for pollution control through special organizations like watershed councils, through wildlife and conservation groups, through civic clubs, citizens councils and chambers of commerce, they are circulating petitions and voting bond issues to take advantage of Public Law 660 authorizing grants to cities for sewage treatment works in amounts not exceeding $250,000 or 30 per cent of the cost of treatment works.

Today, Missouri ranks second in the nation with thirty-nine approved sewage works projects under Public Law 660. The project register prepared by the U. S. Department of Health, Education and Welfare shows that as of December 31, 1957, Missouri was exceeded only by Texas with forty-one projects. The register also shows that Missouri is fourth in the number of sewage projects under construction and eighth in dollar volume ($11,447,734).

Since the program was inaugurated in July, 1956, sixty cities have filed application for grants for sewage works. Funds for the 1958 fiscal year have been allocated. Current applications will cover the annual appropriations for the next two years.

For the most part Missourians perhaps have not been wise in their dealings with nature. They have used up resources that might have been saved. Nature's wealth is not unlimited.

When Missourians feel a need, they find a way. As soon as they began to see a possible end to the wealth of nature, they began to find ways to use their resources wisely.

They have made a good beginning. But they still have not decided definitely and finally that they will take the road of the conserver and wise user.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 May, 1958 Number 5

Symposium on Endocrinology

Iatrogenic Thyroid Disease

THOMAS W. BURNS, M.D., *Columbia*

I DO NOT BELIEVE that I will require much time to discuss the topic I have been assigned *per se*, that is, iatrogenic thyroid disease, because I do not believe that this is a common or important condition. In order for a physician to cause thyroid disease, he must either intentionally or unintentionally over-medicate his patient, creating thyrotoxicosis factitia; or he must surgically or medically remove or decrease thyroid function to create a state of hypothyroidism. For many years it has been known that one can produce in man, by the administration of excessive amounts of thyroid hormone, all the manifestations of hyperthyroidism with one notable exception, the eye signs of Graves' disease do not occur. Actually, thyrotoxicosis factitia is a relatively rare occurrence, and more often than not, it is the patient who induces it rather than a physician. Typically, the patient, motivated by a neurotic compulsion to lose weight, over-medicates himself. The resultant clinical picture which so closely simulates true hyperthyroidism differs from it in two important respects: (1) the gland is not palpable; (2) the radioactive iodine uptake test tends to be depressed rather than elevated and, as indicated, signs of exophthalmos are absent. The amount of medication which is required to induce this state is variable, but tends to be much higher than one would expect. I have seen people who had been taking 6, 8 or even 10 grains of thyroid who showed relatively little toxicity.

Iatrogenic hypothyroid disease has been induced with the goal of relieving severe angina pectoris. Here one is trying to reduce the work required of the myocardium by reducing the metabolism of all the tissues. As far as I know, it was the clever Dr. Sam Levine and Dr. Herrman Blumgart of Boston who conceived the idea, some thirty years ago, to thyroidectomize patients without thyroid disease but with intractable angina. At the present time, Levine no longer advocates this form of treatment. However, Dr. Blumgart and other cardiologists continue to believe that reduction of thyroid function, using radioactive iodine or a thiouracil derivative is of value in selected cases of angina.[1] However, this aspect of iatrogenic thyroid disease more properly belongs in a cardiac panel than an endocrine one.

If there are not many specific examples of iatrogenic thyroid disease, there are certainly many pitfalls in the use of both antithyroid and thyroid medication which I think are worth mentioning. I would like to discuss some of these.

First, one might consider the treatment with thyroid of the euthyroid individual—the person with normal thyroid function who has, or may have, a hypometabolic condition. This situation arises frequently in practice. Usually the physician is aware that the patient probably does not have hypothyroidism, but he may believe that the patient is hypometabolic or has some other condition for which thyroid medication has been reported to be efficacious. I think it is important for physicians to be aware of the "natural history" of the euthyroid person treated with thyroid medication. Dr. Farquharson of Toronto has done a series of interesting studies over several years in which he treated a variety of patients with normal thyroid function with increasing doses of thyroid medication.[2] The results may be summarized briefly.

In the typical situation at the level of 2 grains of Canadian desiccated thyroid, slightly more potent

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Presented at the Ninth Annual Assembly of the Missouri Academy of General Practice, Hotel Governor, Jefferson City, October 30, 31, 1957.

that U.S.P. thyroid, the patient would have a moderate increase in the BMR and the protein-bound iodine; however, when the dosage was maintained at the same level for several months, the BMR and PBI returned to normal. Manifestations of thyrotoxicosis were not observed. At the 4 grain level essentially the same thing happened, a transient elevation, higher this time, of the BMR and PBI, with return toward normal or to normal with continuance of medication at the level of 4 grains. Toxicity was infrequent. Finally, at levels of 6 and of 8 grains, Dr. Farquharson and his collaborators noted a persistent elevation of the PBI and the BMR. Measurements would reach a peak, then fall to plateau level higher than the base line, pretreatment one. Toxicity, i.e., thyrotoxicosis factitia, was not uncommon.

The most interesting finding, however, was noted after thyroid medication was withdrawn. A fairly rapid fall in the BMR and PBI over a week or two to levels below the control level occurred. Then, over a period of about one to two months, the BRM and PBI gradually increased back to normal. The conscientious physician, trying to determine whether a patient who has been on thyroid medication for some time is truly hypothyroid or not, may discontinue thyroid medication and then measure the BMR or PBI in two or three weeks. He finds that they are low and concludes that his patient actually was hypothyroid. His patient then returns to an indefinitely long period of thyroid medication. However, if the patient had been tested two months after discontinuance of thyroid medication, the physician might have found measurements of BMR and PBI that were perfectly normal. Thus, it is important to allow a patient a long period, about two months, off thyroid before assessing thyroid function.

The treatment of the hypothyroid patient is not without pitfalls. First, the choice of preparation to be used is of some importance. This is most commonly desiccated thyroid. It is worth indicating to the pharmacist that U.S.P. thyroid is desired; the non-U.S.P. forms of desiccated thyroid may vary in iodine content and cause capricious results in the hypothyroid patient. Most pharmaceutical companies supply U.S.P. desiccated thyroid, but there are exceptions. I would caution against the use of enteric-coated desiccated thyroid. I recently observed a myxedematous woman at the University of Missouri Medical Center; she had been taking large doses of desiccated thyroid, enteric-coated with erratic response. A bit of detective work revealed that she was passing many of them out of the gastrointestinal tract intact. Unrecognized variation in absorption of thyroid medication can present a subtle, frustrating clinic problem.

There are other thyroid medications available which I am going to mention but briefly. Proloid is one with which I have no experience. I see no real advantage that it offers. Crystalline thyroxin and now 3,5,3'-triiodothyronine are available; the latter has the proprietary name Cytomel. Its more rapid onset of action and its greater potency seem unimportant in the usual clinical situation. It has been widely touted as an agent to combat "metabolic insufficiency." I am not sure that I know all that term implies. However, I believe that desiccated thyroid would probably be just as effective a therapeutic agent, if one can wait for its onset of action. A specific or unique action of 3,5,3,-triiodothyronine in instances of faulty cellular utilization of thyroid hormone has been suggested but not proven.

Cost of medication is something to consider. Recently, I checked with our pharmacist who is familiar with charges in the central Missouri area, and calculated some average costs. On a monthly basis the expense of U.S.P. desiccated thyroid, 3,5,3'-triiodothyronine (Cytomel) and thyroxin for maintenance therapy equivalent to 3 grains of desiccated thyroid daily, are something like this: $1.80 for desiccated thyroid; $6.00 for 3,5,3'-triiodothyronine, and $7.00 for thyroxin. If one is treating a patient for an indefinitely long time, these differences can be quite important.

In the use of desiccated thyroid, another area that warrants caution is the adjustment of the dosage level. The myxedematous patient should be started at a low dose level, about ¼ to ½ grain per day, because while myxedematous, he is most sensitive to the agent. The dose may be increased by quarter-grain increments about every six weeks. As euthyroidism is approached, the patient tends to become increasingly insensitive to increases in thyroid; it takes longer to observe changes after a dose increasement. I think six weeks or two months is the minimum period for each dose level as one approaches the euthyroid state.

Many older people, and this is the common age group that presents with myxedema, have cardiovascular disease. These patients have to be handled cautiously. I routinely hold their medication at the level of about 1 to 1½ grains for several months, evaluating their cardiovascular status at frequent intervals.

A few words should be said about juvenile myxedematous patients. They are usually resistant to medication in terms of bone growth. In other words, to achieve optimal bone growth, one must push thyroid medication almost to toxic levels. Frequently one must risk producing toxicity in his young patients to achieve his therapeutic effect.

Now I would like to turn to the antithyroid drugs and mention some of the pitfalls that I have encountered in using them. The commonly used agents are propylthiouracil and methimazole or Tapazole. The usual daily dose of propylthiuracil is frequently quoted as 300 mg. per day in the textbooks. I have found here in central Missouri that the usual thyrotoxic patient is atypical in that he requires a larger dose than this. We usually start our patients on 400 to 600 mg. of propylthiouracil unless his toxicity is quite mild. I think that undertreating those patients who are quite toxic, using the standard or average doses, is one of the real mistakes in the use of these agents. Two of the three cases of thyroid storm I have seen have been in patients who were put on average doses when they were very toxic. They returned to the clinic several weeks later in thyroid storm. I am convinced that one does a disservice to the patient if he fails to prescribe an adequate dose of antithyroid medication. Toxicity is not increased significantly by increasing the dose so there is little to lose and a great deal to gain by using an adequate dose. Not infrequently, one has to go up as high as 900 or 1000 mg. of propylthiouracil per day.

Division of the total daily dose is important. Some of the patients I have seen in consultation for refractoriness to antithyroid medication, I find have been put on small doses to be taken on a "t.i.d." schedule. When I asked them how they arrange the t.i.d. schedule in their daily life, frequently all three doses are taken within a ten or eleven hour period. I emphasize to my patient to take his medication about every eight hours and if the patient understands what you are trying to accomplish in terms of maintaining a reasonably constant blood level of the drug, he usually will cooperate quite readily. It is important that this be done since the medication is fairly rapidly excreted, and, if there are wide gaps in administration of the drug during the day, there is a temporary escape, thyroid hormone is synthesized and the time required to bring the patient to the euthyroid state is prolonged.

Lastly, I would like to say a word about our oldest friend in the field of thyroid therapeutics, and that is iodine. I am sure that in the past, iodine has caused many dramatic remissions in thyrotoxic patients. Today, however, I believe that one rarely has use for iodine alone in the hyperthyroid patient. Iodine may cause a remission. On the other hand, its action is highly unpredictable and I am sure that there have been many failures in the past; patients who did not respond at all and patients who responded initially and then escaped the antithyroid action of iodine. As far as the thyroid is concerned, I believe that the place for iodine is restricted to two areas: (1) prophylaxis against endemic goiter by its incorporation in salt; and (2) in the preparation of the thyroid gland for surgery. After treatment with propylthiouracil, the surgeon encounters less difficulty at time of operation if iodine (10 to 15 drops of Lugol's solution three times daily) has been given during the final two weeks before surgery, concurrently with propylthiouracil or methimazole.

106 Westwood Ave.

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Relative Value of Different Thyroid Tests

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I AM GOING TO discuss the relative value of different thyroid tests. As the practice of medicine improves, there are newer, more complicated tests, many of which have contributed tremendously to modern efficiency in diagnosis; and, as one who has practiced medicine for forty years, I may regretfully say, by the same token, they have decreased our zeal for history taking and some of the simpler things of physical diagnosis.

The tests customarily thought of in checking for thyroid efficiency are: First, the basal metabolic rate; second, blood cholesterol; third, radioactive-iodine uptake, and fourth, serum protein-bound iodine concentration. Through the abuse of BMR readings and because of its age, it has developed some enemies. But I think with a rational observation of the various tests, one will find that each test has its place. It is true that the BMR is influenced by non-thyroid conditions. It is subject to technical errors, but it is particularly valuable in following the patient's progress irrespective of what original methods were used in making the diagnosis.

Serum cholesterol is rather significant in myxedema, but is of little service in thyrotoxicosis.

Radioiodine uptake measures only the retention of the iodide ion; it does not measure the rate of thyroid hormone formation nor the function of the gland to supply the body with thyroid hormones. The excretion of I^{131} in urine is a more reliable method than the Geiger counter. In hyperthyroidism there is a decrease of the iodine uptake.

Serum protein-bound iodine is one of the best tests for both hypothyroidism and hyperthyroidism. It is an expensive test, it is a difficult test, it is subject to human errors; but I think that as time goes on and it is used more extensively, it most likely will follow the general rule and will become easier to run and more accurate. The method of Barker is now used in running this serum protein-bound iodine determination.

A fifth method which one is sometimes called upon to use is the method of differentiation of primary and secondary myxedema. Primary myxedema, of course, is thyroid myxedema—a genuine thyroid failure in function. Secondary myxedema is a myxedema resulting from pituitary deficiency in which there is a lack of thyrotropic hormone of the pituitary, thus lacking adequate stimulation for the thyroid gland to manufacture its own thyroxin or hormone. One good method of testing is taking an iodine uptake, and then a week or ten days later giving, on three succeeding days, a daily dosage of 20 to 30 milligrams of thyrotropin; then make another iodine uptake determination and note the variance if any. If there is a distinct variance, one is convinced that he is dealing with a pituitary myxedema rather than a thyroid myxedema. And if one is treating what looks obviously to be myxedema and is despairing of results from the use of thyroid extract, it would be proper to think that this is a possibility—this pituitary myxedema. It is a rare thing, seen infrequently; but, nevertheless, it is possible that it is the time to run this differential test.

A moment ago I said that the BMR is affected by heart disease. It is affected by hypertension, malignancy, blood dyscrasias, fevers, emotional upsets, and so forth. Therefore, it should be remembered that any of these conditions could cause a high metabolic rate. In making the diagnosis of hyperthyroidism, one must not rely solely on this or any other laboratory test but should use his clinical judgment. The protein-bound iodine determination or the iodine uptake method would serve nicely as a differential factor; that is, if one actually needs to substantiate his own sound judgment with a laboratory procedure. I am in the habit of running BMRs on patients liberally, freely; and my technician has said, "Why did you have me run that BMR—you made the diagnosis before I ran it and put the diagnosis down on the chart and gave the patient medicine?" "Well, I have to keep my records up." So there are many, many times that one knows clinically the diagnosis of hyperthyroidism or of hypothyroidism is correct. After going through the gamut of these various and sundry tests, one must come to the realization that the clinical observation is, after all, the most substantial method for making the diagnosis of hyperthroidism and hypothyroidism. Furthermore, there is some question about the fact that iodine is considered as the all important element in the thyroid hormone and measure only the iodine.

Let's see whether that is the whole story of the thyroid hormone; and, of course, iodine uptake and plasma iodine are solely dependent upon the iodine element. Suppose we start with the idea of trying to substantiate the use of the various and sundry tests. Hypothyroidism is an example. If one depends upon plasma iodine or iodine uptake for a diagnosis of hypothyroidism, many will be missed because such tests do not record hypothyroidism well; particularly the iodine uptake is unsatisfactory for low thyroid function. The belief that hypothyroidism is myxedema is incorrect and has led to a lack of recognition of need for thyroid extract in many patients. I get quite disturbed when some individual speaks on hypothyroidism as though it was myxedema, no more, no less. There are many ramifications of thyroid deficiency. As an example, in sterility, particularly of the male, hypothyroidism is frequently a factor. Yet this male individual has absolutely no sign of myxedema. But if he is checked a little more carefully, in the history there unquestionably will be a history of unusual tiredness, of mental tiredness as well as physical tiredness. One may get a history of sensitivity to cold; of frequently recurring infections, particularly upper respiratory infections; frequent colds in the individual—to add to the history of sterility. That is just one example I call to attention as a manifestation of genuine hypothyroidism which really responds to proper thyroid therapy.

Other phases one must consider in a thyroid disturbance are the emotions of the individual. The emotions of the individual do not record well in tests, but they do record well to a physician who will sit down and take the time to listen to patients and derive from them a good history. How often I have stood in an autopsy room when the pathologist suddenly announced "this is so-and-so" and I just shake my head and stomp out and say "I knew that, I knew that. The patient told me that and I didn't write it down. The patient told me that." How frequently the patient will tell you the diagnosis if you will but listen and use some logic in correlating the statement he has made. Depression is an important element of thyroid deficiency, psychasthenia—depression plus weakness; somnolence—the tendency to be sleepy. These hypothyroid individuals are sleepy individuals but they are nervous individuals. I never saw a genuine hypothyroid patient that was not nervous—definitely nervous. There is cold sensitivity, they invariably have a low grade anemia; dry hair and skin—I pay quite a bit of attention to that; brittle nails; gain in weight (I question whether thyroid has much to do with weight gain anytime); mental and physical sluggishness. All of these are symptoms in hypothyroidism.

In hyperthyroidism all are quite familiar with the history and the findings: rapid heart rate, loss of weight (I refuse to make a diagnosis of hyperthyroidism if a patient does not lose weight on a regular diet). There are the eye signs, and so forth.

I would use the various tests, there is a place for each one of them. I would make use of basal metabolic reading, and I would think one could make use of basal metabolic readings better in the office than in the hospital. They wake them up at 5 o'clock, rattle dishes, refuse to give them something to eat, take them down two hours later in a cellar, let them lie around on an uncomfortable cot for another hour or two, and then yank them in for a BMR. And one does not get a good BMR reading that way. But in the quiet of one's own office with one's own technician, the patient may come in early in the morning and relax for a half hour. I think one gets a better reading there. I am convinced that I do in my own office. The BMR is not a difficult test and I think with the newer technics and newer machinery, I should say, it is not uncomfortable for the patient to take a BMR.

The cholesterols—yes. All are sensitive of cholesterol today, so it is a good idea to take that routinely and for different reasons. The iodine uptake test is becoming more usable in that one now can secure the I^{131} easier than formerly and does not have to go to special hospitals in order to have it done. I hope it will be more extensively used because certainly there are instances in which it can be of definite diagnostic differential benefit. The serum iodine determination is expensive today because of the difficulty of the technic, the time it takes a technician to run it, and certainly in private offices it would be a most difficult procedure to attempt. At certain centers, such as the medical schools, one could have them run, but, as I have said, it is an expensive procedure and I really believe that unless one is completely befuddled concerning his diagnosis, for the time being one could get along without it.

So in summing up the relative value of different thyroid tests, I say we have left out the family physician who listens and who differentiates, who makes his good physical diagnosis, uses logic and puts his facts together and arrives at his diagnosis.

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Management of Non-Toxic Nodular Goiter

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ESSENTIALLY ALL diseases of the thyroid are associated with structural abnormalities. Abnormal enlargement of the thyroid gland, regardless of cause, is spoken of as goiter. Nodular goiter that is nontoxic is usually compensatory for a decrease in thyroxin and related to hypoiodinism. It is due to relative or absolute deficiency of iodine in the body, such as may occur at puberty and in endemic goiter regions.

Goiter of this type is often referred to as "simple goiter," "endemic" and "iodine deficiency goiter." Usually thyroid function is normal, occasionally hypothyroidism is present. It predisposes to nodular goiter.

The administration of iodine or desiccated thyroid may produce involutionary changes in the gland; however, if no thyroid is given and the gland continues to be stimulated for years, heterogeneous changes may be produced dependent upon the response of the thyroid to stimulation.

In the same gland marked variations in growth and functional response of the cells may be observed. Structural changes occur in the acinar and the interacinar tissue. Some of the tissue may be divided into nodules and when these are completely encapsulated forming discrete tissue masses with histologic patterns different from the basic acinar structure, they are called adenomas.

All nodules of the thyroid gland are by no means adenomatous. On the contrary, most nodules are the result of a hyperplastic process and are dissociated from benign neoplasia.

Nodular goiter, notably single nodular type, is presumed by many to predispose to cancer.[1,2] For this reason the prophylactic removal of all single nodular goiters has become the practice of many surgical clinics. Reports on the incidence of carcinoma of the thyroid in this type of goiter are disturbing to the clinician who attempts to evaluate and advise patients with single nontoxic nodular goiter. Data from various parts of the country show the incidence of carcinoma of the thyroid in single adenomatous goiter to be 15.6 per cent on the West Coast,[3] 33.3 per cent in the Boston area,[4] and from 20 to 24.5 per cent in the Great Lakes area.[5, 6, 7] These reports are from recognized thyroid centers and surgical clinics. One can justly reason that to these groups are channeled difficult problems and those patients who already are designated to require surgery, in many of whom the diagnosis of carcinoma is strongly suspected. This means that these statistics are drawn from a selected group of patients in whom the incidence of cancer would be much higher than in the population as a whole. Even so, these figures prompt one to take stock and to ask oneself if he is not overlooking cancer of the thyroid in his own community and if one is not practicing negligence in allowing patients with nodular goiter to postpone surgery. To those who follow a conservative course there is some comfort in a review of the mortality rate of this disease in those areas referred to.

VanderLaan[8] in a study of 18,688 autopsies at Boston City Hospital found but five deaths from cancer of the thyroid. Jaffe[9] found two instances in 1,000 postmortem examinations at Cook County Hospital and Dailey and Associates[10] at the University of California Hospital, San Francisco, found four deaths in 1,700 examinations. These are the same areas referred to where the incidence of thyroid carcinoma was found to be so high. In 1952 there were but three deaths reported from this disease in the City of Saint Louis,[11] or approximately one out of every 300,000 persons, and in 1956 the Bureau of Vital Statistics reports six deaths. In the State of Missouri over a ten year period from 1948 to 1957 the average number of deaths was one for every 180,000 persons in the state.[12] In the United States in 1950[13] there was a total of 933 deaths from cancer of the thyroid, or a death rate of 0.0006 per cent.

Sokal,[14] in reviewing the mortality from cancer of the thyroid on the continent and the United States, concludes that approximately one out of every 165,000 persons die of this disease annually. These figures imply that death from cancer of the thyroid is rare. This is believed to be the fact in the East Missouri area. A review of thyroid operations at St. Mary's and Firmin Desloge Hospitals, St. Louis, over a fifteen year period (1938-1953) showed the incidence of carcinoma to be 20 out of 926 operations or 2.16 per cent. Of the 20 cases of carcinoma the diagnosis was suspected in 17 instances; in three it came as a surprise at surgery. This would indicate that the danger of overlooking this condition is not great. This data does not permit the clinician to take a negativistic attitude toward treatment of this disease but it does permit him to take a broad view of the subject.

The routine removal of all singular nodules of the thyroid is an impractical approach to a solution of this problem, both economically and scientifically. Although one is frequently told that nodular goiter is a precursor of cancer of the thyroid, this is not an established fact and there are those[15, 16] who feel that the danger of carcinomatous degeneration of the thyroid is slight. Although the mortality rate would be practically nil in large surgical clinics this would not be true if the routine removal of all thyroid nodules became a universal procedure. The morbidity rate, even in the most skillful hands, would be something to consider. For example, parathyroid tetany, the worst of the complications, presents a real problem and is reported to result in 1.3 per cent of all thyroidectimies performed at the Lahey Clinic.

There is great doubt whether the few lives that would be saved by prophylactic lobectomy would not be more than offset by the misery of chronic tetany and the occasional death that would result from such widespread practice.

In developing a plan of procedure it is suggested that in young people under 30 years of age this type of goiter be removed even though the majority will prove to be benign. The majority of carcinomas in the early years are of the papillary type or are adenomas of low grade malignancy and this practice will eliminate by far the greater number of life-taking carcinomas. Beyond this age the patient may be observed with reasonable safety. Should the gland suddenly enlarge or change in consistency from a soft movable structure to a hard fixed gland it should be removed.

Were it established that high grade thyroid malignancy is a transition from the benign adenoma, removal of the latter would be advocated by all, but the evidence in the literature does not support this contention.[17]

It would seem, therefore, that the clinician would be justified in assuming the responsibility of advising patients with nodular goiter on individual merit and should not subscribe to the routine removal of all single nodular goiters on the basis of certain statistical data.

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Oral Antidiabetic Compounds

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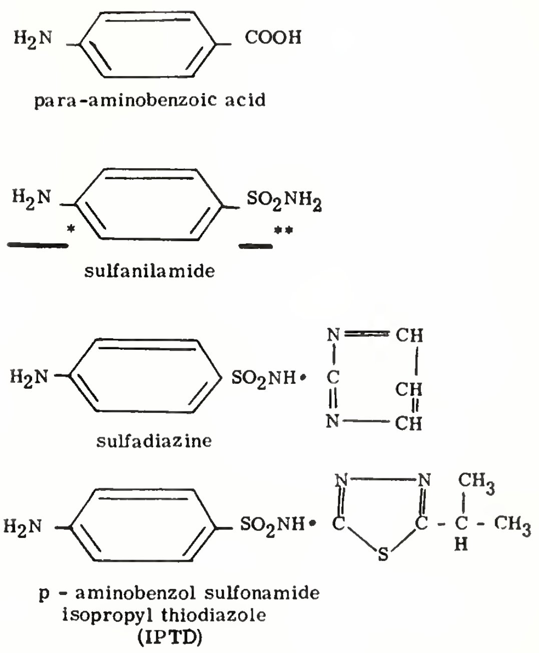
Not since the hectic days that followed release and, at first, the limited availability of ACTH and cortisone, have physicians and investigators interested in endocrine and metabolic disease seen such a display of widespread interest as that which followed the announcement, in 1955, of the efficacy in large clinical trials of an oral antidiabetic compound. This announcement first appeared in the German literature. In the same journal, three articles by three independent groups of investigators reported their experience which totaled more than 1,000 cases collected in the preceding two years from 20 or more clinics.[1] The compound that the German investigators reported was carbutamide or BZ-55. This substance was quickly made available to investigators in this country through the Eli Lilly Company. Since that time, news of the progress of these researchers has been seen as frequently in the lay press as in medical journals, and I think even the most conscientious physician interested in the field of diabetes might find it difficult to answer all of the questions of his well-read patients.

Before speaking further of the current status of these agents, I would like to turn briefly to their chemistry and history. Although other types of compounds are being tried, we are principally concerned today with the ones that are now available or have been extensively studied; these are representatives of the sulfonylurea group of compounds. These compounds are derivatives of the sulfonamide parent structure. The prototype is sulfanilamide. It has many thousands of derivatives. Many of these were developed in Germany in the 1930's and during World War II.

Sulfanilamide is a benzene ring with a para-amino group at one end and at other end an amide of the sulfonyl radical. It is a relatively simple aromatic compound. The two widely tested antidiabetic compounds that have been seen in this country are carbutamide, the Eli Lilly preparation, and tolbutamide, or Orinase, supplied by the Upjohn Company. In both of these compounds, the sulfonyl amide group is substituted with identical side chains; thus, that end of the benzene ring is the same in each of them. However, there is an important difference at the other end of the ring. Carbutamide retains the amino radical which is common to all of the antibacterial sulfonamide preparations while tolbutamide, or Orinase, has, instead, a methyl group substituted there. In this way, tolbutamide differs from all of its relatives that have been used in infectious disease. These chemical relationships are illustrated in figures 1 and 2. As one might expect, the first observations of the production of hypoglycemia with the sulfonamide derivatives occurred during the treatment of experimental and clinical infectious disease. Among the first of such observations, if not the first, was made by Janbon in France in 1942 when a sulfonamide derivative (IPTD, see fig. 1) was being tested in the treatment of typhoid fever and patients were noted to have hypoglycemia-like episodes.[2] When blood sugars were determined, they were found to be low. This observation did not go unnoticed; during the next years this compound was tested in animals, and it was found that it was indeed a potent hypoglycemic agent. One of the conclusions that was reached, and which still seems to be valid, is that the agent was only effective in producing hypoglycemia if the pancreas was present or if insulin was given.[3] This characteristic appears to be applicable of the later compounds, tolbutamide and carbutamide. The French investigators, fearful of toxicity, did not test their compound in patients until after the German reports on BZ-55 were made in October, 1955.

ORAL ANTI-DIABETIC AGENTS
CHEMICAL DERIVATION

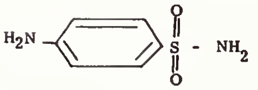


* p - Amino group necessary for anti-bacterial action
** S - Benzene ring linkage necessary

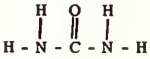
BZ-55, or carbutamide, was rapidly and widely

ORAL ANTI-DIABETIC AGENTS
CHEMICAL DERIVATION

(1)



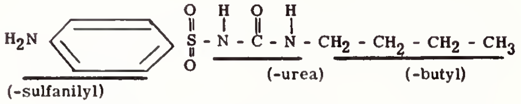
sulfanilamide



$$\mathrm{H-\overset{H}{\overset{|}{N}}-\overset{O}{\overset{\|}{C}}-\overset{H}{\overset{|}{N}}-H}$$

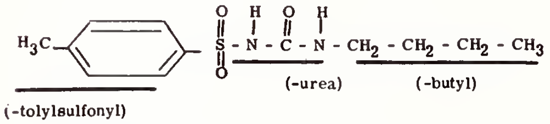
(2) urea

(3)



1 - butyl - 3 - sulfanilyl urea
carbutamide BZ55

(4)



1 - butyl - 3 - p - tolylsulfonyl urea
tolbutamide (U2043)
Orinase

distributed to investigators in this country, and investigation commenced in early 1956. By midsummer of 1956 enough evidence of toxicity had accrued to seriously concern Eli Lilly Company. Questionnaires were sent to everyone investigating the drug and more than 6,000 cases were reviewed. It was found that there was sufficient evidence of toxicity to warrant its discontinuance. Thus, before carbutamide reached the market or was released for general use, its clinical investigation was brought to a halt in the fall of 1956. Almost concurrent with the studies on carbutamide were those being made on tolbutamide, or Orinase. In fact, in many clinics both these agents were available and were being studied at the same time. Tolbutamide, thus far, seems to differ significantly in several respects from carbutamide, particularly and fortunately in its lack of propensity to cause the serious side reactions that have been associated with sulfonamide compounds: severe leukopenia or agranulocytosis, dermatitis, drug fever, and the diffuse arteritis first noted by Rich.[4] These side effects have not been a problem thus far in the use of tolbutamide. Perhaps it is that substitution at the *para*-end of the benzene ring of the methyl group for the amino group that is responsible for the lessened toxicity. Evidence that this may be true is the observation that tolbutamide has little goitrogenic effect, unlike carbutamide and most of the other sulfa compounds. And, it is devoid of any antibacterial effect. I think it is worth physicians noting the highly ethical manner in which the clinical trials were aided by the pharmaceutical companies involved. Information accrued by one group of investigators was rapidly circulated to all the people who were investigating the drugs; interested groups were brought together frequently and the results of these symposia quickly published.[5] When doubt was cast on the safety of BZ-55, the Eli Lilly Company promptly requested that clinical trials come to a halt.

With this spirit of cooperation, progress was rapid, and by June, 1957, tolbutamide had been given to about 18,000 patients. The Food and Drug Administration apparently felt that there was insufficient evidence of toxicity to delay its release. For the last several months, it has been available to practicing physicians.

Tolbutamide has been used during the last year at the University of Missouri Medical Center. I would like to outline briefly the method of selecting and managing patients who receive this compound. This method reflects a composite of the various approaches used in other clinics. The prototype patient who is considered a candidate for tolbutamide therapy is one who usually has had the onset of his diabetes in middle age or later; he is a stable diabetic, frequently requiring moderate amounts of insulin but perhaps requiring none. It is important that the patient has little or no propensity to develop diabetic acidosis. Presented with such a candidate, the patient is instructed to discontinue his insulin for about one week and, if he has not been doing so already, to test his urine for glucose and ketone bodies four times daily, recording the results. Thus, the pattern of his glycosuria can be seen and there is opportunity to see if he has any tendency to go into acidosis. Of course, this can be done only if the patient is under close observation, preferably in the hospital. It is emphasized to the patient the importance of his following his prescribed dietary regimen. After about seven days off insulin, a fasting blood sugar is drawn and an oral test dose of 3 gm. of tolbutamide is given. At two and four hours after this dose, blood is again drawn for sugar determinations. Frequently, the blood sugar drop following tolbutamide will be 50 per cent or more of the fasting value. However, 20 per cent is considered an adequate response. A response of 15 per cent is questionable and 10 per cent or less is usually indicative that the drug will not be effective. The response to this test usually agrees with one's clinical impression and fails to add much predictive value of its own. Some clinics have tried modification of the test as I have described it, including an intravenous one. I found no reason to believe that these offer any advantage.

If, after the trial period off insulin is completed and the test is done, and the patient appears to be a suitable candidate, he is given 2.5 gms. of tolbutamide a day, commencing the day after the test; the dose is decreased by 0.5 to 1.0 gm. decrements, usually levelling off at 1 gm. per day. The patient is seen at least once weekly during the first several weeks. At the time of his visits, a fasting blood sugar, a white cell count and differential count are obtained. His records of urine testing and his dietary management are reviewed. Evidence of satisfactory response includes little or no glycosuria (less than 10 g. of glucose per 24 hours), a fasting blood sugar of 150 mg. or less, and, of course, maintenance of optimal weight.

Results have been good in the patients selected in the manner that I have described earlier. Contrary to the fear which has been expressed by some medical editoralists, viz.,[6] that patients relieved of insulin injection would become increasingly careless about their diabetic state, in general, we have noted that the patient has manifested a renewed interest in diabetes in general and in his own diabetic problem in particular. His attention to the details of his diet has increased; he tests his urine more faithfully than he had before; all in all, he is a better diabetic patient in terms of over-all cooperation than he was before. I grant that we are still in a "honeymoon period" with oral therapy that may not last, but I can say that so far patients have been happy to be free of the need to take insulin and anxious to preserve that freedom.

A fair percentage of patients who have had good responses continue to do just as well after tolbutamide itself is discontinued entirely. This is, of course, gratifying to physician and patient likewise. However, more frequently the patient begins to spill moderate amounts of glucose into the urine. When tolbutamide is reinstituted, it is started at a higher dose level (2 to 3 gm. a day) then decreased, as was done initially. Whether a small degree of glycosuria and hyperglycemia noted after tolbutamide has been withdrawn completely is harmful or not is a matter of opinion; but, in the absence of a definitive answer, I think one should be conservative and avoid hyperglycemia and glycosuria as much as possible.

I think I should mention the cost of tolbutamide; it is a little surprising that it costs more to maintain a patient in an average situation on tolbutamide than on insulin. The average cost to the patient of a tolbutamide tablet in central Missouri is from 15 to 20 cents. If the patient has been on 30 units of NPH insulin or PZI insulin a day and is shifted to a maintenance dose of two tablets of tolbutamide, his cost per month increases from $2.75 for the NPH or PZI to $9.00 for the tolbutamide. This is somewhat surprising. The reason is, in part, due to the fact that for some time pharmacists have been supplying insulin at cost to the patient; and, of course, there is a considerable markup in retailing tolbutamide. The cost of the latter will probably gradually fall in the future.

I have said nothing thus far about the mechanism of action of the sulfonylurea compounds in lowering the blood sugar. Whether the primary site of action of these agents is the peripherial tissues, the pancreas, the liver or elsewhere remains unknown. It appears quite definite that some functioning islet cell tissue must be present if the oral agents are to have a hypoglycemic effect. It is hoped that the elucidation of this problem of mechanism of action of the sulfonylureas will provide basic information concerning the nature of diabetes mellitus itself.

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Obesity and Its Management

EDWARD H. HASHINGER, *Kansas City*

IN SPITE OF ITS frequency, obesity is one of the most misunderstood of all diseases. There have been many, many theories. Much work has been done to isolate a dominant factor that can be blamed for the development of obesity, or of fat in the human body, which could be a definition for obesity. Now if one is to determine whether a person is truly obese, one would have to dip him in a tank of water to record his specific gravity, which actually would give the only definite method of saying that such an individual is or is not obese. So, therefore, as a substitution for that there is a more or less standard of weight for height and age, and using a little sense in looking at the individual and estimating his skeletal structure, as well as his occupation. Something that is known—first of all—is that most likely obesity is not an endocrine disease. We have been trying to establish a relationship for years and thus for have not succeeded in tying obesity to any one of the endocrine glands. I recall that some twenty to twenty-five years ago Collip and O'Donovan at Toronto felt that they had a metabolizing factor isolated from the pituitary and, at that time, in an effort to make an estimate of its value, I used it for quite a while at the Endocrine Clinic at Kansas University. Some of the results were rather startling—surprisingly good. Within the last year research programs have been reinstituted along this line hoping to blame some factor of the pituitary for the unusual obesity that one sometimes sees. For the time being, one must simply retreat to the idea that this individual is fat, that his food intake is above his metabolic level.

Why one individual can eat 6,000 calories with utter abandon in a day and not gain an ounce and another individual on 600 calories will gain is the real $64,000 question on obesity. An effort to answer that is certainly definitely being made. The hypothalamus has been blamed a great deal because of the sensuality of a hunger center in the hypothalamus, and if it is involved, it is just because it precipitates an increased appetite or hyperphagia. So one is back again to good intake. There has been discussion that there is faulty utilization of the food; there is impaired metabolism in these individuals. I have not been able to definitely prove that at all or that there is a hereditary factor; in other words, that there is a defect in the metabolism of fat cells. As far as the theory of obesity is concerned, we will have to let it stand at that and go on with the possible management of these patients.

First of all, in the management of obesity one might consider the significance of obesity to the patient. Unfortunately, in recent years, we have come to think of security, security in life all around about us. There is groping around for security instead of going to work and manufacturing our security. Well, I think that it has gone on from that into our medical problems. The alcoholic says, "Oh, doctor; I can't stop drinking. Won't you put something in my coffee so I won't have an appetite for alcohol?" He is one of those individuals with lack or diminution of character who has not been able to face the world and face the situation. Other patients run around all day long and then call the doctor and say "Can't you call the drug store and send over some sleeping pills because I'm afraid I won't be able to sleep tonight," disregarding that the real reason of the sleeplessness was the conduct of the individual during the day. The other individual violates physiologic laws, violates—possibly—moral laws, violates the common ordinary laws of what should constitute the daily routine of the individual, and he is disturbed and goes to the doctor and says, "Doctor, tranquilize me, tranquilize me." Now by the same token the individual who is obese comes and says, "Doctor, can you give me some pills so I won't have an appetite?" Most of them say that to me—I don't know whether they say it to you or not, but that's their customary approach when they come to see me for their obesity. Well, that means I relax in my chair and give them a free ten minute lecture on strength of character, because I have not been able to successfully treat an obese patient unless that was developed within them. Pills and all types of diet lists work to no avail unless the individual admits it within himself. I have found that out in alcohol patients; Alcoholics Anonymous has proven that when scientists could do nothing about it. Alcoholics Anonymous is the only method, thus far, completely successful in taking care of alcoholics because they must admit within themselves that they have not the strength of character to stop drinking. So, therefore, the significance of obesity to the patient is important.

Obesity sometimes is convenient to a patient for the adjustment to life. Sometimes it is a defense in hostile environment—a sort of substitute "pregnancy" so to speak. It is useful for removing the individual from the situation. It is an alibi for failure in social and business activities. It is a sign of happiness—good disposition, some say. I do not find myself getting any happier when I put on an extra ten pounds I should not take on, I assure you. Overeating mainly is a response to a psychologic impulse, emotional tension, guilt, frustration, boredom, anger, sorrow, depression. I know that from my own modest experience in myself. If there is a bit of boredom while I am around the house, I suddenly develop a hunger to get an apple or search for the cookie jar and grab a few. I know full well that that is true.

One must get a dietary history on these individuals. Oh, yes, that is for the records. But I want you to bear in mind that the fellow who said that all diabetics and obese people are liars had something when he said it. You must ask him, of course, because if you do not the patient thinks you are not a good thorough physician. I say "Yes, yes, yes, yes." I always say to them "Of course, there are varying requirements of food, but I do believe you in your obesity are a sick person. To me you are just as sick as if you had broken both your legs; as though you had a gallbladder condition which might result in surgery; as though you had a heart lesion. You are sick; you are a sick person. Now you make up your mind to that and we will get together and we are going to treat your disease—obesity." It is just as important to treat this as it is to treat heart disease or broken legs.

I see my obese patients frequently, as frequently as they will come to see me. If they do not obey, they will come back a little later and finally sheepishly admit that they did not get back to see me because they had not obeyed my implicit instructions for the continuation of a rigid diet. Now there are all kinds of diets, all kinds of funny stuff. One hears of them every day. They are a lot of hokum—all of them. It is just calories, my friends, calories. If you want to take those calories out in scotch and soda, all right; but it is going to cut down on the rest of your food for that day. There is a summer diabetes camp for children and they emphasize that so carefully. The little youngster will come and say (they see somebody else having a candy bar) "Oh, Miss Jones, can I have a candy bar?" "Oh, sure." They give him a candy bar and say "Where's your book?" Each of them carries a little book and write in there "Candy bar—so many calories." And up they come to dinner that evening and there is ice cream for dinner. Little Willie says "Where's my ice cream?" "Oh, you got that this afternoon when you got the candy bar." Now that is the method to estimate your calories. Take what you want, but it is still calories.

The ideal method is to first establish confidence of the patient and then attempt to determine any emotional or psychic states that are at fault. I have had patients to say "Yes, Doctor, I know it. I know it. When I'm having difficulty with my husband and we're wrangling, quarreling for a week or so, I can gain five or ten pounds in a couple of weeks. Just eat, eat, eat. I know that, Doctor." Yes, I have had them say that to me—a number of them. Let's go back and correct the etiology if we can. One of the good methods now of treating these people is "Fats Anonymous." I forget what the actual term is; it is something like Alcoholics Anonymous. Groups of people get together, have a little meeting a couple of times a week and discuss their problems. And when one person tells of an emotional problem, another scratches his head and says, "Well, you know I think I have the same thing myself." They talk about it automatically, relieve themselves of the emotional disturbance which has precipitated their unusual appetites. That is group therapy.

How about drugs? You might guess what I am going to say about drugs after what I said a moment ago about strength of character. One may give patients amphetamines, the different ones. There is a recent one—it's popular. I always tell my students "you better get that disease this year while that new drug works because it won't work next year most likely." There is a new one—Preludin—in the same category of physiologic function as amphetamines. It seems to act, they say, on the hunger center in the hypothalamus. It is hard to disprove that. The amphetamines do, for a period of time, absolutely. I do not know whether it has a specific effect—many have tried to prove that—or whether it is a matter of precipitating a feeling of well-being, and with a feeling of well-being, emotions are lessened and do not seem as intense. Therefore, one may eliminate some extra eating.

How about exercise? One has to walk 30 miles to lose a pound. So let's just get away from the idea that exercise will reduce weight.

So little is known about the etiology; we know definitely the individual is taking more food than he is metabolizing; we know, furthermore, that emotions are a dominant phase in the creation of an inordinate appetite; and we know also that there is no medication, thus far, that will aid them in their correction of obesity.

411 Alameda Rd.

The Use and Abuse of Androgens and Estrogens

DANIEL L. SEXTON, M.D., *St. Louis*

For convenience, the use of estrogens can be divided into three categories. The first of these is their use to stimulate genital tissue growth. This is of value in the treatment of vaginitis of all types through the mechanism of desquamation of the vaginal epithelium and replacement with new tissue. In senile vaginitis a suppository containing 0.5 mg. diethylstilbestrol, or its equivalent, is used while lesser amounts are employed in the juvenile type.

Oligomenorrhea and certain instances of amenorrhea are treated with estrogens to stimulate endometrial growth.

Treatment for these conditions is best carried out by cyclic therapy, attempting to duplicate the natural action of the ovaries by giving cyclic estrogen-progesterone treatment. This can be done nicely by oral therapy, using diethylstilbestrol in doses depending upon the severity of the case. An average of 0.25 mg. daily for some 18 to 20 days is started on an arbitrary date or on the day after the cessation of menses. On or about the eighteenth day of stilbestrol therapy, the addition of progesterone orally in 10 mg. doses twice daily for some six to eight days completes the cycle. If response is not satisfactory within two cycles of such treatment, one is then justified in adding 25 mg. of progesterone during the anticipated premenstrual week, because so many of these cases of oligomenorrhea are due to a progestational inadequacy. Such treatment is carried out for a period of 90 days. If there is no response, one might continue for another 30 or 60 days of therapy. If one is encouraged, he can try to leave off therapy beginning first with the omission of the estrogen and resort to progesterone alone. This plan of treatment will prime endometrial growth and about 60 to 75 per cent will develop a normal cycle. If the patient happens to be deficient in thyroid or will tolerate thyroid, it is added. Amenorrhea can be treated by this plan with less optimism.

I have treated dysmenorrhea when there is an ovarian deficiency with estrogen therapy. This is the only condition in which I believe that one has a chance of benefiting the patient with dysmenorrhea with estrogen therapy.

The second category in which estrogens are helpful is in their use to depress anterior pituitary function. This treatment is widely used by obstetricians in treating postpartum engorgement of the breasts. Five mgs. of diethylstilbestrol three times a day usually takes care of this situation.

In the treatment of functional menorrhagia, diethylstilbestrol 5 mg. three times a day for rarely more than three or four days will bring about a cessation of bleeding. In the adolescent group, menorrhagia is usually due to a progestational deficiency, and again progesterone will have to be employed on a prolonged schedule. If bleeding is brought under control, the adolescent girl can be given progesterone orally, with additional injections of progesterone if necessary, beginning on about the 12th to 15th post-menstrual day and continuing until onset of menstruation. If this is done for some three or four months, the majority of girls will reestablish a normal menstrual cycle. With menorrhagia during the premenopausal period an accurate diagnosis must first be made. I see women who have a curettage without follow-up therapy. Many of these untreated have a repetition of their problem. If I am in charge, I start treatment shortly after curettage. Usually it suffices to treat the patient with progesterone therapy from about the middle of the month until a day or two before the onset of the period. It may be necessary in some to carry out cyclic estrogen-progesterone therapy.

The third category in which estrogens are of value is their use in substitution therapy. Occassionally there is the castration syndrome that must be treated. These women have an imbalance that all are familiar with. Many have had much more experience in treating these patients than I and you know that estrogens are of extreme value. The same is true at the menopause. There is just one thing about the menopause that I would like to comment on and that is not to consider every patient from 13 to 60 menopausal. If one thinks about the menopause occurring somewhere from 45 to 50 and goes back a few years to the premenopause and keeps on going back, and then after cessation, adds the years of the adjustment period, one can carry on indefinitely. I think it is rare that a patient at the menopause needs only estrogen therapy. I think it is of adjuvant value, in fact of great adjuvant value, but most of these patients need treatment other than estrogens. Lots of men get results that I do not get because they are better medical psychotherapists than I. There is an awful lot to the personal attention that one gives these patients.

Senile osteoporosis is helped definitely by the estrogens and, at this point, I think I should comment about combined estrogen-androgen therapy, which is probably more effective in senile osteoporosis. It is equally valuable in the treatment of the menopause as well as the castration syndrome. As time has proved, combined estrogen-androgen therapy has its advantages over estrogen therapy alone.

Estrogens are also used to neutralize androgenic

Presented at the Ninth Annual Assembly of the Missouri Academy of General Practice, Hotel Governor, Jefferson City, October 30, 31, 1957.

effect in the treatment of cancer of the prostate. It is known that with estrogens alone, or with orchidectomy, metastatic bone lesions can fill in and the patient goes along well. Huggins likes to divide such patients into three groups: those that do not respond at all, those that respond completely, and those in whom the metastases respond but in whom the primary lesion continues to grow.

Estrogens are also of value in treatment of cancer of the breast in the post-menopausal group. Now post-menopausal means somewhere around 20 to 25 years after the patient has ceased menstruating.

The abuses, I think, in the use of the estrogens lie chiefly in using them for just about everything that a woman comes in for: her anxiety state, for all of her various complaints, the abuses of her husband, hoping that such therapy will overcome inherent personality traits. At the menopause these various personality traits break through; a dormant schizoid personality may show up. One is not going to cure such patients with estrogens alone. Maybe if the patient stays with one physician long enough, she will go through the cycle and one might give credit to whatever treatment was employed at the time of improvement. These women often are depressed and have various phases and degrees of psychogenic disturbances. They have many other symptoms referable to all systems of the body. They are not all cured with estrogens alone. Estrogens are of adjuvant value—or the estrogen-androgen combination, if you prefer, but this is only part of the therapeutic plan.

One must heed the warning about cancer of the breast or cancer of any of the female structures in those patients being treated with estrogens. No one has ever shown that estrogens in themselves produced cancer. When Edgar Allen made the remark in St. Louis some years ago—some 15 to 18 years ago—warning against cancer of the breast developing from estrogens, there was quite a turmoil. There has never been any proof that estrogens *per se* produced cancer. But it is true that if the seed is there it certainly can be aggravated by the use of estrogens. Therefore patients should be studied carefully before being treated, and should be examined periodically.

I have just about one minute to talk about androgens. Androgens are used in combination with the estrogens and in this way suppress pituitary function. Androgens are used as substitution treatment in hypogonadism of the male and can bring about the development of secondary sex characteristics approaching normal. They can bring about the development of pubic hair growth, axillary hair growth, change of voice, and improve some of the male traits that otherwise would be completely lacking in the eunuchoid. Androgens are helpful and may be employed in the treatment of cancer of the breast in the premenopausal and menopausal period. Men who are treating breast cancer widely like to include androgens in their therapeutic program. It has been shown at least temporarily that many of the metastatic manifestations can be obliterated for the time being and it has been stated that primary lesion may be slowed down—but that is debatable. Androgens in the so-called male menopause create a feeling of well-being; improve fatigue, reduce restlessness and improve memory in the man that has reached the fifth decade. As far as treating the man that has anxiety with androgens, I have never seen any benefit and that is the type of person one would like to help. My time is up and there are many things unsaid. Perhaps they can be brought up at the roundtable.

634 N. Grand Ave.

Panel on Endocrinology

CHARLES A. JOST, M.D., *St. Louis,* Moderator

Dr. Jost: Gentlemen, I thought perhaps the most appropriate question to start off with is one directed to Dr. Hashinger, and it says: Give us a three minute résumé on the obese pill-seeker. I would like to have that because I am getting a little bit heavy around the middle myself. Doctor, would you comment on it, please?

Dr. Hashinger: I take it that you want to hear what I have to say to these individuals who are obese, when I feel I can get their cooperation. They say, "well, doctor, I do not eat much. I have checked on this and my friends will all tell you the same thing. I eat less than anybody in the family." I answer, "Yes, I know that; I suspect that, but I want you to know that I consider obesity a disease, a serious disease and your coming here to see me about obesity is important to your life and also to me as a physician. I am going to take it seriously, but when I take it seriously, I want you to take it seriously also. It takes both of us to win the fight—and it is a fight—it's a terrific fight. We can win it—it has been done before. In the first place, let's do not say, 'you eat a little or you eat much.' As far as I am concerned, you eat too much. I don't care what you eat—it's too much or you wouldn't be obese. So, let's skip that and don't talk about that any more. I'm going to weigh you every two weeks. We'll talk about the problem from week to week. Now, I want you to know, furthermore, that I consider the most dominant cause of obesity some emotional situa-

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tion in your life—some depression, some frustration. If you will but dig down into yourself, bring that out and expose it, it will cease to damage you. That is what we know as vocal catharsis among the psychiatrists and you must bring that out to the surface and it will cease to harm you. Then we will get along better." Well, I go on in that category and then they will say, "Well, all my family are fat." "Well," I say, "your family has the same eating habits, most likely." They frequently will attempt to alibi here, alibi there. I give them a little talk about strength of character. I admit to them that the times I have gained weight were when I lacked strength of character. Any human being has a mobile strength of character in his daily life. I think that getting cooperation, a friendly cooperation (we laugh and talk about various and sundry things and take a little time) certainly does more for my patients than diets or drugs.

Dr. Jost: Thank you, doctor. We have a tremendous number of questions, an almost impossible number, but I find one here that I think is for all three of you. This question is a comment on the management of hyperthyroidism in the patient who is 40 to 50 years of age; contrast the indications for surgery, radioactive iodine, or the prolonged use of antithyroid medications. Dr. Sexton, I wonder if you would start.

Dr. Sexton: In the patient 40 to 50 years of age with hyperthyroidism it makes some difference whether it is a diffuse goiter or whether it is nodular. If it is a diffuse goiter—with our present knowledge—there would be no question in my mind but that the patient should be treated with radioactive iodine. If the patient is quite toxic, he should first be prepared with an antithyroid drug because the use of radioactive iodine has, in a few instances, precipitated a thyroid crisis in the severely toxic patient. This can be avoided by giving the patient first an antithyroid drug and discontinuing this antithyroid drug in a week—some say two or three days is adequate before the administration of radioactive iodine. If the patient has a nodular toxic goiter, it is to be remembered that it is the rare toxic nodule that is carcinomatous; such is possible but unlikely. This patient can be treated the same way, though it does take longer and larger doses of radioactive iodine. I would be less enthusiastic about treating this patient with radioactive iodine, but I would go along with it.

Dr. Burns: I would agree with what has been said. I think that initially, one does not have a difficult time making a choice. I think regardless of the type of goiter, diffuse or nodular, one should start the person on an antithyroid drug—propylthiouracil, Tapazole or the like. I would want to have time to know the individual patient involved better. After a period of two weeks or more, one comes to the point of decision as to whether definitive treatment should be further treatment with the antithyroid drug, radioactive iodine or surgery. Generally, in the nodular gland, I would prefer surgery; in the diffuse gland, radioactive iodine; in some individuals, especially those who have hade a good response and who are cooperative, close-by patients, I would continue to keep them on antithyroid medication.

Dr. Jost: Dr. Hashinger, it seems as though we are having some agreement along these lines. Now I wonder if we would drop this age limit to around 35—how would you handle this? We will suppose that this is a patient with a diffuse hyperactive thyroid gland, 35 years of age.

Dr. Hashinger: Well, at the present moment, I would, I believe, make an effort to control the thyroid with antithyroid drug. I am not as enthusiastic about it now as I was a year ago. I have gone back pretty well to surgery. I will always have my tongue in the cheek in the use of antithyroid drug, expecting the potentiality of necessity of surgery at a later time and not try to carry the patient too far before resorting to surgery. Does that answer your question?

Dr. Jost: Yes sir. Now, Dr. Burns, there are many questions on the use of tolbutamide and some of them are in the nature of particular technic. What is the best time to administer tolbutamide—before meals, after or between meals? Do you feel that it is wise to give more than three of the 500 mg. tablets during the day? Upjohn recommends no higher dosage than that.

Dr. Burns: As far as the method of administration goes, I believe that it has been pretty well shown now that it is not necessary to split the dose or give it at varying times, although, frankly, we do this occasionally in certain situations; but in the usual circumstances, such as I outlined earlier, we give the medication in the morning as if it were insulin, that is, before breakfast. As far as the dosage goes, we have never given more than 3 gms., that is, six 500 mg. tablets. At present I have one patient on this dose level. She is really a poor candidate, but I think this patient is in more danger to herself on insulin than on the high dose of Orinase. I don't like it, but I feel it is the lesser of two evils. Usually we are able to come down to three, two or one of the ½ gm. tablets per day.

Dr. Jost: I wonder if any of you gentlemen have ever used tolbutamide with the idea of trying to stabilize the diabetic patient who requires larger doses of insulin and is difficult to manage, and use it in conjunction with insulin? Do you have any comments along these lines?

Dr. Burns: We are currently trying this as are other people in various parts of the country. Frequently, it is one of the few things left. So far, we have not had a good result in the three or four people we have tried it on. There are a few reports, however, describing extremely brittle, difficult patients controlled on insulin alone who seem to be stabilized by the addition of tolbutamide. It is in this situation that we have been splitting the dose and giving it at the same time as insulin, morning and evening, and so far without very good results.

Dr. Sexton: I would like to confirm what Dr. Burns has said. We haven't had any success in the several bad diabetic patients we hoped to help with supplemental tolbutamide.

Dr. Jost: Thank you very much, doctors. Now, a number of the questions are related to the use of thyroid in hypothroidism and one of these is the effect on the fetus in pregnancy, if any. Dr. Hashinger, would you comment on that?

Dr. Hashinger: I believe Dr. Sexton could probably do better on that than I. I do know full well that although there was for a time objections in certain areas against the indiscriminate use of thyroid in pregnancy, the present approved conception is the universal usage of thyroid extract automatically in pregnancy. Of course, if there is evidence of hyperthyroidism. One would not do this. Because of the universal usage, I will have to go along with the idea that there is most likely no possibility of injuring the fetus.

Dr. Jost: Thank you, doctor. Is that pretty much along with your line of thinking, Dr. Sexton?

Dr. Sexton: Yes, in fact, I think that if one encounters a pregnant woman that is hypothyroid or who develops a goiter during pregnancy—colloid goiter it most probably will be—she should have thyroid therapy. We have had three distinct cases of cretinism in which the history revealed that the mother developed a goiter during pregnancy. In one, a family of five siblings in which the fifth child was a cretin, the mother developed a goiter during her last pregnancy. We have always gone on the theory that if there is any thyroid deficiency in the mother, it should be treated. There is on record at least one case in which a pregnant woman with hyperthyroidism was treated with an antithyroid drug and gave birth to a cretin. This can be avoided, presumably, if desiccated thyroid is added.

Dr. Hashinger: Yes, there is a potentiality of trouble if one does not use thyroid, but I have not seen or heard of difficulty or trouble resulting from its usage, but if you do not use it—it encourages cretinism.

Dr. Jost: Dr. Sexton, this is one directed to you. In a patient, aged 70, with osteoporosis, what specific medication do you use, what dosage?

Dr. Sexton: I'd use, in that patient, a combined estrogen-androgen tablet or capsule orally and would use about 0.25 mg. of dienestrol and 5 mg. of methyl testosterone daily—follow the 1 to 20 formula.

Dr. Jost: Doctor, in those cases that have a marked increase in libido, what do you do then?

Dr. Sexton: Then, it becomes embarrassing.

Dr. Jost: In the elderly women?

Dr. Sexton: Well, testosterone in sufficient doses will definitely increase the libido. I have had that happen around the menopausal age in treating breast cancer with large doses of testosterone. I have not witnessed such in an elderly person. Small doses occasionally change the voice in young people. In such instances one has to reduce or drop off the androgen and use an estrogen alone.

Dr. Jost: In other words, you change the proportion or drop the androgen altogether?

Dr. Sexton: That's what I would do.

Dr. Jost: Dr. Hashinger, could you comment on the effect of thyroid orally on the precipitation or the prevention of coronary disease?

Dr. Hashinger: We have discussed a bit the futility of destroying thyroid function and making an individual hypothyroid for the amelioration of angina. We have been trying to do a few little tricky things at the Medical School, but not for publicity, and it resulted from a mistake that was made. Some years back, we had a patient with marked angina who came regularly for his tablets of aminophyllin (understand me, I did not prescribe aminophyllin, because I do not believe aminophyllin is active by mouth). Nevertheless, he was taking his 3 or 4 aminophyllin tablets a day. He was coming into the dispensary. He would take just a few steps and wait. He would take a few more steps and wait, because of his severe angina. I was finishing my clinic one day, in which I was giving everybody thyroid extract. It bothered me because the house clinic man had left and I wondered if I should write a refill for this patient, and decided I would. Well, the students were heckling me over my shoulder and I guess I was talking to them about something else and I wrote down "Tablets thyroid extract, Burroughs-Wellcome Company, grains 2, one t.i.d." He left the clinic and about two or three weeks later (I only gave him 50 tablets, so it must have been that long) he came back. I heard a wrangling in the halls of the clinic. He said, "No, I do not want to see that doctor, I want to see the tall doctor who gave me the gray pills."

Well, I heard that and went up to him and said, "What's the trouble?" I was going to solve it. He said, "Oh, you are the doctor!" I said, "No, I never gave you thyroid, I gave you aminophyllin." We went to the drug room and sure enough, I had given him thyroid. He was taking six grains of thyroid a day. The cause of the argument was that for the first time in more than two years, he was having no angina. Well, I got scared—I almost had an angina attack myself, right there. Well, I compromised and persuaded him to take only one a day and he has gone on for a long time and, as far as I know, doing very well taking a small dosage of thyroid. Don't ask me why, but we have started some little inquiries and surreptiously taken a few extra patients to see whether it is possible that the little bit of effect that it had on the heart musculature just squeezes a little more blood through the coronary. That's a little risky way of doing it, I would say. However, that's an hypothesis—this problem of the relationship of thyroid activity and angina is not solved any more definitely than its relationship with the true myxedema heart is solved.

Dr. Jost: Dr. Burns, do you feel that in giving thyroid it should be given continuously, or should rest periods, of, say, a week or a month, be specified?

Dr. Burns: No, I believe it should be a continuous proposition and when one arrives at the proper dosage level for a given patient, usually that dosage level stays the same for a good number of months or years and does not require adjustment.

Dr. Jost: Thank you, doctor. Dr. Sexton, could you outline your therapy for treatment for undescended testicle in a youngster 10 to 12 years of age?

Dr. Sexton: The boy with undescended testes has two courses ahead; the testicle may come down spontaneously or it may be brought down with encouragement. Now, a boy of 10 or 11 years of age who has undescended testes, I feel is entitled to a trial on stimulation therapy, which is chorionic gonadotropin. These boys should be given 500 to 1,000 I.U. twice weekly for a total series of some ten to twenty thousand units. About 25 per cent of the testes will descend following this plan. If there is no response he is entitled to an orchidopexy, or rather an attempt at such. If, in the beginning, there was a fairly good sized testicle in the canal, I'd recommend operation right away without preliminary chorionic gonadothropin because there is something mechanical that is preventing descent of such a testicle. But if it is a small testicle, one has the chance of increasing its size with chorionic gonadotropin which might result in descent and, if not, would facilitate surgery. There are lots of failures, but these youngsters, I feel, are entitled to this plan of treatment. If they do not respond to chorionic gonadotropin their chances of a good surgical result are likewise not good. There is a psychologic problem in later life with the child that is never treated. He will grow up and say that his parents or the doctor neglected him. Even though you feel that the final outcome is doubtful, results are sufficiently satisfactory to warrant a trial on plans of treatment available.

Dr. Jost: Thank you, Dr. Sexton, Dr. Hashinger and Dr. Burns. We feel that this has contributed a great deal to answering some of the things that our limited time did not let you talk about during the papers. I wish we had time to go on. I want to express our sincere appreciation for your coming here and for your efforts on our behalf.

GERIATRIC MEDICINE AND PSYCHOSOCIAL PROBLEMS

The second annual postgraduate course in "Geriatric Medicine and the Psychosocial Problems of Later Life" conducted by the Division of Gerontology of Washington University School of Medicine will be conducted May 24 and 25. The course is under the sponsorship of the Gerontological Research Foundation and the Missouri Heart Association and is cosponsored by the St. Louis Medical Society, the St. Louis County Medical Society, the Missouri State Medical Association, the St. Louis Academy of General Practice, the Mental Health Association of St. Louis, the Missouri Division and St. Louis City and County Units of the American Cancer Society, and the Arthritis and Rheumatism Foundation. The program follows:

Saturday, May 24

Geriatric Medicine and Its Relation to Medical Practice, William B. Kountz, M.D., St. Louis.
Age, Biological Change and Disease, E. V. Cowdry, Ph.D., St. Louis.
Etiology of Arteriosclerosis and Its Relation to Disease Problems of Later Years, Jeremiah Stamler, M.D., Chicago.
Recognition and Control of Heart Disease in Midlife and Beyond, Kenneth Price, M.D., St. Louis.
The General Therapy of Heart Disease, James Owen, M.D., St. Louis.
Recent Advances in the Study and Management of Arterial Occlusion and Changes Resulting Therefrom, William T. Foley, M.D., New York.
Early Detection of Cancer in Human Tissues, Robert H. Lund, St. Louis.
Blood Dyscrasias Common in Geriatric Medicine, Carl V. Moore, M.D., St. Louis.
Chemotherapy of Cancer, Edward Reinhard, M.D., St. Louis.
Surgical Procedures in Geriatric Medicine, Carl A. Moyer, M.D., St. Louis.
Gynecological Problems Common in Older People, Willard M. Allen, M.D., St. Louis.
Reception and Banquet, Tiara Room, Park Plaza Hotel. Annual meeting of the Gerontological Research Foundation. Address on Recreational Measures and Their Value to Older People, Alexander Reid Martin, M.D.

Sunday, May 25

Stamina of Individuals as It Pertains to Health in Later Years, Kaare Rodahl, M.D., Philadelphia.
Rehabilitation of the Elderly Person, Donald L. Rose, M.D., Kansas City, Kansas.
The Role of the Physician in the Total Care of the Aged, Joseph Costello, M.D., St. Louis.
The Nature of Psychiatric Problems of Later Life, James M. A. Weiss, M.D., St. Louis.
Recognition of the Clinical Psychiatric Syndrome of Later Life, Samuel B. Guze, M.D., St. Louis.
Geriatric Psychiatry, motion picture.
Treatment and Rehabilitation of Psychiatrically Disordered Older Persons, Ivan N. Mensh, Ph.D., St. Louis.

Grand Rounds Medical Conference

Myasthenia Gravis

Saint Louis University School of Medicine

Dr. W. J. Henke: This 41-year-old Negro female entered Firmin Desloge Hospital on July 25, 1957, because of weakness. About six weeks prior to this she and her family had noted the onset of ptosis of the right eyelid followed shortly by generalized weakness, diplopia, and difficulty in deglutition. She noted that these symptoms were less severe in the morning on arising and progressively worse as the day progressed. She had also noted dyspnea during this period of time. There was a 15-pound weight loss in the last month.

She also complained of periodic episodes of small hemoptyses for the last two years. Her pulmonary history otherwise was not remarkable except for a strong family history of tuberculosis (three brothers, a sister, and an aunt had pulmonary tuberculosis but the patient denied intimate association with them).

Physical examination on admission revealed a well-developed, slightly obese Negro female who seemed extremely weak and who had marked ptosis of the right eyelid. The slightest exertion seemed to cause extreme fatigue. The thyroid did not seem to be enlarged. There was decreased expansion of the lungs but the lungs were clear to percussion and auscultation. One observer thought he could detect some increased retrosternal dullness. There was no atrophy of any muscles noted. The neurologic examination was normal except for the ptosis, generalized weakness, and hypoactive reflexes except for the biceps and brachioradialis reflexes which were considered normal.

Laboratory data included a normal urinalysis and hemogram, negative VDRL, and a negative sickle cell preparation. Electrolytes, including serum calcium and phosphorous, and plasma proteins were normal. An L.E. preparation was negative. Spinal fluid examination revealed no cells, protein 6 mg. per cent, sugar 78 mg. per cent, and chlorides of 748 meg. per cent. Fasting blood sugar was 98 mg. per cent, nonprotein nitrogen was 31 mg. per cent, and total cholesterol 350 mg. per cent. Chest roentgenograms revealed an anterior mediastinal mass measuring approximately 5 cm. in diameter. Electrocardiogram revealed ST sagging in lead II with low T waves in leads II, and V3 to V6. Radioactive iodine uptake studies were normal (19 per cent uptake over the thyroid at 24 hours).

The day after admission the patient was given 10 mg. Tensilon intravenously as a diagnostic test for myasthenia gravis. The results were considered equivocal. This was repeated the next day; on this test there was definite evidence of increased muscle strength as manifested primarily by greater ease of respiration, ability to get out of bed much easier, and a slight improvement in the eyelid ptosis (movie). Electromyograms (right quadriceps muscle) showed low amplitude of action potentials and shorter than normal duration of action potentials. The electromyogram was repeated immediately after the intravenous injection of 10 mg. Tensilon and showed definite increase in amplitude and duration of action potentials.

Because of the history of hemoptysis, direct and indirect laryngoscopy was done prior to contemplated bronchoscopy. Because blood came from a minute hemangioma at the base of the tongue on the right, bronchoscopy was not done.

The patient was given Neostigmine and the dosage regulated until maximal improvement seemed to occur at doses of 30 mg. every six hours. However, maximal benefit was at no time striking. On several occasions, because of inability to cough, parenteral prostigmine (2 cc. of 1:2000) was given; she usually responded within minutes with a more vigorous cough and expectoration of mucous plugs, (2 cc. of 1:2000) often perfect casts of bronchi of medium size.

On August 16, 1957, under general anesthesia and by means of a median sternotomy, a 5 by 4 by 3 cm. thymoma was removed. Approximately three hours after surgery she had a severe cholinergic crisis which responded to large doses of atropine intravenously. On the third postoperative day, while being transferred to a Drinker respirator (she had previously been maintained by use of a Bennett positive pressure apparatus connected directly to a tracheotomy tube) she became cyanotic and had cardiac arrest. Immediate thoracotomy and cardiac massage was successful and within thirty minutes of the cardiac arrest the patient was responding to stimuli.

It became apparent after the initial cholinergic crisis and several less severe ones in the second to fourth postoperative days, following small doses of neostigmine, that the patient did not require anticholinergic drugs and none were given after that time. She did require positive pressure oxy-

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These conferences are conducted each Friday morning in Miller Hall, Firmin Desloge Hospital, and are participated in by members of the Medical Staff and the Basic Science Departments.

Recordings of these conferences are edited and abstracted by William A. Knight, Jr., M.D., and Joseph B. Vacca, M.D.

gen or compressed air (by means of Bennett respirator) until September 1, 1957. By this time she began accelerated improvement; she began to ambulate and to eat well. On her twentieth postoperative day she had a second cardiac arrest one hour after her tracheostomy tube was removed. Cardiac action was again affected by immediate thoracotomy and stimulation. However, she remained comatose from this time on and died on September 10, 1957, twenty-five days after thymectomy. An autopsy was performed and atelectasis of both lower lobes was found in addition to bilateral bronchopneumonia, a fibrinous pericarditis and visceral congestion.

Dr. W. K. Mueller: I will only show the pertinent films and the pertinent films are those of the chest. We have chest roentgenograms in 1949 and 1952 which are perfectly normal in all respects. At these times there was no abnormality in the area of thymus. In the chest films in 1957, at the time of this admission, the only significant abnormality is the shadow in the anterior mediastinal area (fig. 1). As can be seen on the PA and lateral films, it lies in the anterior mediastinum and somewhat to the right of the sternum. This is an ovoid tumor measuring approximately 5 cm. or less in diameter. This tumor mass, subsequently proved to be a thymoma, is more apparent than the usual thymoma on chest x-ray.

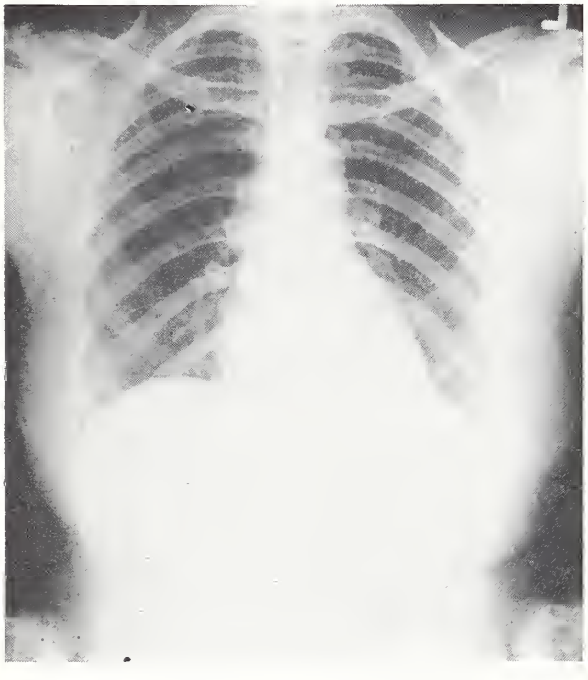

Fig. 1. P. A. chest roentgenogram demonstrating mediastinal mass just to the right of the sternum.

These are the only pertinent films. Other films that have been obtained in this hospital include a gastrointestinal series in 1952, which was suggestive of a duodenal ulcer. A repeat gastrointestinal series on this admission showed the upper gastrointestinal tract to be perfectly normal. Intravenous pyelograms were done a year or so ago and were completely normal.

Dr. William A. Knight, Jr.: I have asked Doctor Tureen to summarize for us today the clinical features of the disease of myasthenia gravis and to discuss briefly the differential diagnosis and treatment of this disease.

Dr. Louis Tureen: Myasthenia gravis is a disease characterized by easy fatigability of striated muscle, and it may be associated with muscular weakness. In about 25 per cent of cases there is a definite loss of muscle strength. The disease may occur at any age from birth up into the 70's. It most commonly occurs in people in the third decade and fairly commonly in the fourth decade. Cases have been reported in infants born of myasthenic mothers. In those cases the prognosis is good because in a short time, usually in a matter of days, the children recover. We have recently had a child of the age of about 10 years as a patient who had myasthenia gravis.

Myasthenia gravis occurs in about equal numbers in the two sexes. It has been observed, however, that more young women have this disease, while in men it occurs at an older age level.

Clinically it occurs in a variety of forms. The most benign cases are those that begin with ocular symptoms. These patients may have ptosis or paralysis of one or several ocular muscles; the abnormalities are not necessarily symmetrical. The pupils are not involved so that there is no evidence of paralysis of the third nerve or the sixth nerve, but rather evidence of paralysis of individual muscles. This benign form may never proceed to involve any other muscle groups. Diplopia, ptosis, the increasing extra-ocular muscle weakness with progression of activity will all be characteristic of the disease myasthenia. One of our senior medical students came to us a few years ago with diplopia and he subsequently was proven to have myasthenia gravis.

In other cases there is, in addition to involvement of the ocular muscles, involvement of the facial muscles, the palate, the laryngeal muscles, or any of the muscular groups. The type of involvement that includes the tongue, the palate and the larynx is a serious type because the fatigue coming on after such exertion as chewing and swallowing becomes quite dangerous. In this situation choking and strangulation are serious threats. In other cases in which the respiratory muscles are involved, respiratory crises are extremely dangerous. In addition the muscles of the arms or legs may be predominately involved.

Most of the patients awaken in the morning with more strength than they have at any other time during the day. This phenomonon is most characteristic of myasthenia gravis and almost always occurs. With activity during the day the patient becomes again fatigued and weakened. With rest the strength returns. Following repetitive action of any type there is rapid fatigue of muscles once again. In patients with the bulbar type of myasthenia gravis, if one asks them to count, by the time they reach 30 or 40 the voice has almost completely faded out. This is the clinical picture.

In about 25 per cent of patients with myasthenia gravis the thymus has been found to be enlarged. This finding has raised considerable speculation as to the relationship of the thymus to this disease.

The diagnosis in a well defined case is quite easy. One can look at the typical case of myasthenia and make a rather definite diagnosis in many instances. They will often exhibit the so-called "myasthenic facies." The eyes droop, they look sleepy, the eyes may be askew, the lines of the face are wiped out, there is a weakness of the face at the angles of the mouth prohibiting retraction, when smiling for instance, but without weakness of elevation of the upper lip; therefore, when these patients smile they bare their teeth with a fang-like appearance which leads many of them to cover their face when they smile. Also in some of the severe cases, the jaw tends to fall open and the patient has to hold the jaw with his hand. These patients are fairly easy to spot. The diagnostic test that is par excellence, of course, is the response to neostigmine or prostigmine by the intermuscular injection of about 2½ mg. Following this injection there is usually a rather marked change in the amount of strength of the muscles that are affected.

There are several other tests that are useful in establishing the diagnosis of myasthenia gravis. One is the work test in which a patient is given weights to pull on. In the myasthenic patient one finds quickly diminishing strength as demonstrated in the ergograms. The Jolly test is a measurement of the muscle reaction to the application of faradic stimulation. In the myasthenic patient with this test, after a few normal contractions, the amplitude of the muscular activity decreases rather sharply down to almost nothing. These are rather specific tests in use for almost half a century.

I had the opportunity while I was in Munich last year to observe a test which the people over there feel is pathognomonic of myasthenia gravis and without which they will not make the diagnosis of myasthenia gravis. The test is designed to show that muscular activity in any part of the body releases a curare-like substance into the blood which affects working muscle. The test is performed by taking an electromyogram, for instance, of thenar muscles; a stimulus to this muscle with the faradic rate is established. One finds quickly diminishing amplitude of the muscular contractions in the myasthenic patient. A tourniquet is placed about the other arm and the obstructed arm is exercised. The electromyogram of the opposite arm is again observed during the contraction of the arm with the tourniquet; nothing is observed to occur in the electromyogram more than had originally occurred (which was the decreasing amplitude of the myasthenia). However, as soon as the tourniquet is removed from the opposite arm, the amplitude of contractions in the electromyogram drops more rapidly. This, they feel, demonstrates nicely that the contracting muscle releases a substance which has a curare-like effect on other muscles working elsewhere in the body.

Myasthenia gravis is due to a curare-like activity of some sort which is not specifically worked out at this moment. This results in difficulty in transmission of impulses at the myoneural junction. It is known that acetyl-choline is necessary for the passage of an impulse down a nerve, across the myoneural junction, and into the muscle. It is also known that cholinesterase inhibits this activity. Experiments have shown, however, that cholinesterase is not quantitatively increased in myasthenic patients. Therefore, the cause of myasthenia is not an increase in cholinesterase activity.

The management of these patients depends upon the severity of the illness and the age of the patient. Patients with this disease may have remissions up to four or five years in duration; remissions up to 17 to 20 years have been recorded. Other patients will have a severe onset with rapid involvement of many muscles and die within a matter of months in spite of therapy. Until the advent of the use of prostigmine, about 50 per cent of the patients would die of their illness within a relatively brief period of time. It is generally conceded that prostigmine is the drug of choice in the treatment of myasthenia gravis.

Prior to the use of prostigmine, ephedrine had been used with rather encouraging results. Ephedrine is still used as an adjunct to the use of prostigmine. In more recent years potassium chloride, as another adjunct to prostigmine, has been used with some success by some investigators.

The subject of of thymomas and their relationship to myasthenia gravis has been raised and I am sure Doctor Hanlon will discuss the surgical aspects of myasthenia gravis. However, I would like to call attention to a controversy that raged for many years at the neurologic meetings and which was resolved about five years ago. The Boston group from Harvard had a rather large clinic of myasthenic patients and had advocated thymectomy even though there was no tumor. They felt they had rather good results from this procedure. The Mayo group led by Eaton had done the same for a while and analyzed their results but concluded that neither the incidence of remission or the death rate was significantly altered in patients with myasthenia who had had their thymus removed. Then one day, amid great rejoicing, it was found that the two groups had finally agreed. By reanalyzing all their data they finally agreed that thymectomy was of value in young females. They felt that in this group there was a significant improvement in the remission rate. However, they seemed to feel that it was not of any striking value in any group except the young females.

In the general management of these patients the use of prostigmine or related drugs has to be regulated according to the individual needs and tolerances. Some patients will require up to 25 or more tablets of prostigmine per day. However, when one approaches these levels he must be on constant guard for cholinergic crises. The medical student I mentioned previously was taking as many as 22 15 mg. tablets of prostigmine per day and at this point began having rather definite cholinergic crises. When he cut down on the number of tablets he was taking his strength returned. Thus, in an attempt to achieve a perfect result by increasing the amount of drug taken, one can cross over the line and have increasing weakness due to cholinergic crises. One must remember that at least some of the popular symptoms of myasthenia gravis will remain in spite of optimum drug therapy. They will probably improve to a greater or lesser degree but a residual weakness will usually persist. If the prime difficulty has been ocular, a certain degree of ptosis or diplopia will remain, although usually not as striking as prior to the use of drugs. One must be cautious in attempting to achieve a perfect end result because of the factor of overstepping the line and producing a cholinergic crisis. The general status of the patient and the over-all feeling of well-being, will, however, usually improve to a striking degree with the use of these drugs.

I have a patient at the present time in whom I am not quite sure of the diagnosis. I think she has myasthenia but I have also established the diagnosis of hysteria in this patient. This leads into the discussion, therefore, of the differential diagnosis of myasthenia gravis. This patient to whom I refer is unquestionably a hysterical individual; however, she has all the earmarks of myasthenia except the electrical ones. Curiously, however, maintaining her on prostigmine hydrobromide has enabled her to maintain herself better than she has for many years prior to this time. So, as I say, I am not sure with what I am dealing. I think it is myasthenia gravis in an hysterical individual. Many patients with myasthenia have been previously diagnosed as having hysteria before the proper diagnosis was made. Fatigability is a common complaint of many people with neurasthenia. Sometimes the symptoms of weakness in the myasthenic patient are so vague and so occult that the diagnosis is difficult to establish.

The other diseases that one has to differentiate in the diagnosis of myasthenia gravis include, for instance, bulbar paralysis; paralysis of the tongue, the palate, the difficulty in swallowing, the choking, may be difficult to separate in myasthenia gravis or progressive bulbar atrophy; however, the neurologic signs in bulbar atrophy or pseudobulbar atrophy are so distinctive that if one is on his toes, I do not think he would ever make that mistake. In bulbar paralysis there is atrophy of the muscles with fibrillation and loss of gag reflex, whereas, in myasthenia gravis one does not see these signs. Whereas the movements of myasthenic patients are normal initially, they become weaker on repetitive activity. The muscular dystrophies can sometimes be a differential problem but the distribution of the involved muscles and the facies of the dystrophic person are different than those of the myasthenic. Neuropathy may be a differential point to establish in the patient with the peripheral form of myasthenia gravis. Again I think there are sufficient clinical findings in this group to make the differentiation. However, the sure way to establish diagnosis in these situations is by use of the prostigmine test or the Jolly test.

I have not mentioned the use of Tensilon here as a diagnostic test. The use of Tensilon has been seen in the movie of this patient and its dramatic results; however, I have not had much experience with this drug. The results with the use of Tensilon are rather spectacular in the rapidity of onset; however, the results are also fleeting. Unless one is alert and knows exactly what he is looking for, the effects may disappear before one has had a chance to look for it.

Dr. Knight: Doctor Tureen, I have heard neurologists say that one cannot make the diagnosis of myasthenia gravis without the presence of hyperactive tendon reflexes. What is your opinion of this?

Dr. Tureen: They are generally active, sometimes they are a little bit increased, or sometimes a little decreased. I do not believe anyone should be categorical in a statement like that.

Dr. Knight: I have heard this statement categorically made. Doctor Tureen has referred to the relationship of the thymus gland to myasthenia gravis. After reviewing the literature, I did not get this clear-cut opinion that Doctor Tureen did that thymectomy is reserved only for women. There are some reports that seem to indicate that people with myasthenia gravis who have their thymus removed have no greater survival rate or remission rate that those whose thymus gland is left intact. I do think, however, that if I was a young female, under the age of 40, I would have a thymectomy done because the cure and remission rate is probably 50 per cent in these individuals with thymectomy. I think it is quite difficult for anyone to say whether thymectomy or a natural remission has been the cause of the improvement noted after thymectomy in individual cases; this must be evaluated statistically and still remains a difficult job. Doctor Hanlon has had some experience with this disease and with thymectomy in association with Doctor Blalock and Doctor Grob. I have asked him to discuss the surgical aspects of myasthenia gravis.

DR. C. ROLLINS HANLON: I would like to show some views of the surgical procedure on this patient as an introduction to my remarks concerning the relationship and advisability of resection of the thymus to myasthenia gravis, particularly in myasthenia gravis with thymoma. This is a view of this particular patient at operation. The approach was by a median sternotomy. Although I have seen thymectomy done by a variety of approaches, this seems to me to be the simplest and the quickest. It is important to the sick patient with myasthenia gravis that the least amount of surgical trauma be performed in the removal of the thymus gland. One can see the thymus lying approximately in this location and the bulb of the right pleural space to this side.

This next slide shows the specimen which measures approximately 5 cm. in its greatest diameter. I am interested in the recital of the history. There was the mention of a "suggestion of retrosternal dullness." This "suggestion" of things in physical examination has intrigued me for many years. Just what value this has in evidence I do not know, but I submit that for one to pick up this tumor, which is only of this size, on physical examination, would imply a degree of sensitivity which I have been unable to attain. At any rate this is a small tumor.

Doctor Mueller has mentioned that the radiologist may sometimes pick these up on a routine x-ray; indeed I think that the rate of seeing these thymic enlargements is about one out of six, even in patients who are carefully studied with stereoscopic views and roentgenoscopy. This is not necessarily just in thymic tumors but enlargement of the thymus of any type. This next slide shows the resected material which includes the entire thymus and tumor (fig. 2). The over-all size of the thymus is 8 or 9 cm. while the tumor itself is about 5 by 5 cm. This will be commented on by the pathologist, I am sure, so we will not dwell on this any longer.

I find myself somewhere between Doctor Knight and Doctor Tureen in my feeling toward thymectomy in patients with myasthenia gravis. I agree with Doctor Tureen in that the controversy between the Mayo group and the group at Boston has been resolved. They combined their series and decided that the data demonstrated that the best results from operations were in those young patients, females, and, in particular, those who had had the disease a short time. Naturally enough, young people are likely to have had it a shorter time than old people. I would agree that the best results occur in young females who have been diagnosed rather promptly after the onset of their illness and who do not have thymic tumor. Now I do not think the corollary of this, which may seem implicit, is necessarily true; that is, I do not believe that anyone who is not female, or who is older, or who has a thymoma, or who has had the disease for longer than a brief period of time should automatically not be operated on. While I do not think that everybody with myasthenia gravis should be operated on, I do think that it should be actively considered in any patient who has myasthenia gravis whether or not he has a thymoma. If he has a thymoma, obviously, his prognosis is poor, or rather poorer.

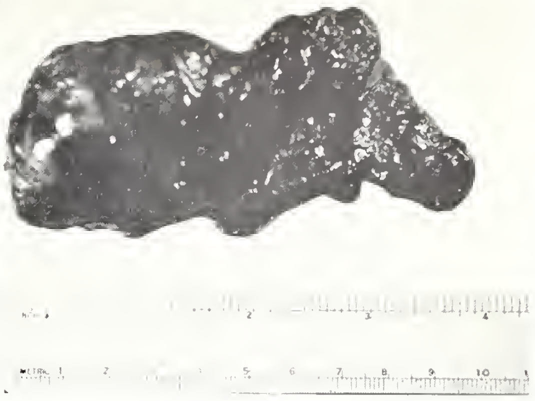
Fig. 2. Photograph of thymus and thymoma removed from this patient.

The progressive disenchantment that has gone on in the surgical treatment of myasthenia gravis is illustrated by a number of series. When the Johns Hopkins Group in 1941 reported the first series of surgically treated patients with myasthenia gravis, they noted that there were a few cases in which the results were rather dramatic. This kicked off the whole surgical aspect of the surgical treatment of myasthenia gravis. Geoffrey Keynes, in England, took it up at that time and probably has at this time done more thymectomies for myasthenia than anyone in the world. He is also more enthusiastic about it and he shows the best results. One has to study the history of this to realize the fact that at first people thought that it was good, and that there must be some relation between myasthenia gravis and the thymus bland. Exactly what the relationship is between them I do not think has been made clear, but there must be some relation. I do not think the thymus causes myasthenia gravis but, secondarily or otherwise, it plays an important role in this disease. Therefore, I think that operative intervention should be practiced fairly frequently even in the bad prognosis group.

In this series from Johns Hopkins Hospital (table 1) one can see that there is a high mortality rate in the patients with thymoma, and that patients with thymoma have extremely poor prognosis in general. The mortality rate in patients without thymoma is zero. Although the group at Hopkins have had over 200 cases, only a small num-

TABLE 1

JOHNS HOPKINS SERIES (1947)

OPERATIVE MORTALITY

3/7 Patients With Thymoma Died
0/25 Patients Without Thymoma Died

The remaining 4 patients with thymoma died at a later date.

ber have been operated on because of this disenchantment with the results and the unpredictability of the results. However, in England, Keynes has enthusiastically pushed ahead as has the Mayo Clinic group. When they first analyzed their cases at the Mayo Clinic, as Doctor Tureen has pointed out, they found that it was so difficult to evaluate any benefit that they tended to give it up. Now, they have found, by re-analyzing their data, that age and sex group variation occurs. This has made a difference in approach and they continued to use thymectomy in selected cases.

TABLE 2

KEYNES SERIES (140 Cases)

THYMECTOMY

	Without Thymoma PER CENT	*With Thymoma* PER CENT
Well	32.5	20
Greatly Improved	33.3	40
Somewhat Improved	25.8	15
No Better	8.3	5
Died		20

Table 2 shows Geoffrey Keynes' series consisting of 140 cases. He has approximately one fourth who are somewhat better and perhaps two thirds who are well or greatly improved. These are better results than those in the Mayo Clinic series. I think one reason for this is the fact that he has 20 per cent improvement in the group with thymoma. He has almost as good results with or without thymoma. I think another of the reasons for his better results is the fact that what he calls "better" or "greatly improved" is by less rigid criteria than the Mayo Clinic's group. In other words, at the Mayo Clinic when they say that a person is much or greatly improved, they feel that he should be completely off the drugs used for myasthenia gravis. Therefore, one can see that their criteria are not exactly the same. However, he had a reasonably high mortality rate with thymomas. Another reason, I believe, for his better results is the fact that he has a large number of young female patients and necessarily they are going to have better results.

The Mayo Clinic series is shown in table 3. At this time they feel that every patient with myasthenia gravis should be considered for thymectomy but not necessarily done. After surgery, remissions in cases without thymoma were almost 50 per cent and about half that in patients with thymoma. Striking improvement occurred in a significant number of patients in that the requirements for medical dosage was substantially decreased. The mortality rate, as can be seen, is high in patients with thymoma. One thing about thymomas that I think should be stressed is the fact that these patients will die not only from the myasthenia, but they will die also from the malignancy of the thymoma which occurs in a fairly high percentage.

TABLE 3

MAYO CLINIC SERIES (121 Cases)

THYMECTOMY

	Without Thymoma PER CENT	*With Thymoma* PER CENT
Complete Remission or Considerably Improved	46	27
Moderate Improvement	19	16
Unchanged	19	5
Worse	4	0
Died	12	52

In summary then, I would say I feel that all young women who have had myasthenia gravis for a short period of time and, in particular, those who do not have thymoma, should have a thymectomy. One can expect a better than 50 per cent chance of permanent remission in these cases after surgery. These are the patients who have more spontaneous remissions in any case; however, I believe that the difference is statistically quite significant.

Now, what to do about older people, particularly males, who have had the disease a long time, and who may have a thymoma? I believe that these patients should be operated upon also unless one feels reasonably sure that the surgery will definitely cause their demise; in such a case one will have to take his chances with medical, nonoperative management alone. If, on the other hand, one feels that the thymoma itself constitutes a bad risk, even in patients with severe myasthenia gravis, I believe they should be operated on. What about the older people who do not have a thymic tumor or one that cannot be demonstrated? Should they be operated upon? I think that this depends upon balancing the risk against the possible gain. I would not advocate it strongly, but I do feel that probably more patients should be operated on than are currently. I do not think that young females who have had the disease for a short time without thymic tumor should be the only ones operated upon.

A few last comments on this woman's course. She lived 24 days after thymectomy. On the fifth day she had a cholinergic crisis, having previously done quite well. Originally it was felt that this had been a myasthenic crisis; after this had been straightened out and, as you have heard, it involved cardiac resuscitation from which she lived nineteen more days and during which time she was up and about the wards and almost ready for discharge. On the twenty-fourth day she had her second cardiac arrest from which she did not recover. This was etiologically unexplained and I still do not understand it. It is important to point out that from the fifth day until her unexpected demise she had received absolutely no cholinergic drugs and had done quite well. I think this is quite striking improvement. I think it should also be pointed out that the differentiation between a cholinergic and myasthenic crisis is one that has to be made instantly and by means of medical tests. If a person begins to show silorrhea and sudorrhea in the postoperative period, this may not be obviously a cholinergic crisis as these things may occur in the normal postoperative period, especially in a patient in a respirator. The differentiation between cholinergic and myasthenia crisis is not clear-cut and the only way one can establish which one has occurred is by therapeutic tests. If one gives Tensilon, for instance, assuming this to be a myasthenic crisis, and it does not work then the patient is treated for a cholinergic crisis. In the cholinergic crisis they tolerate tremendous amounts of atropine and atropine-like drugs which this woman did and recovered.

It is a shame that this woman survived this, including the first cardiac arrest with the complete restoration of cerebral function for nineteen days, and looked as if she was ready for discharge only to have a second unfortunate episode.

DR. KNIGHT: One thing I would like to have clarified that I do not quite understand is what is considered a good or poor risk patient in regard to thymectomy in myasthenia gravis. Also, is there any relationship between an individual's response to surgery and the amount of drugs that they require? Is the patient who receives large amounts of drugs to control his myasthenia automatically a poor risk patient, and is the patient who requires only small amounts of drugs to control his myasthenia a good risk patient?

DR. HANLON: I do not think there is any necessary correlation between these two factors except that I believe that secondary changes do occur in the muscles if the disease has been present for a long time although I am not aware of any histologic change in the muscles that is demonstrable. This situation when it is reached is not reversible by thymectomy. However, if a person is operated upon early (this is all empirical I admit) and if one can break the cycle whatever the relationship is between the thymus and the myasthenia, the secondary effects whatever they are do not seem to occur. I have observed patients to have excellent results insofar as they had what seemed to be permanent remissions, who had in a short and initial course taken prodigous amounts of prostigmine; I have also seen patients who have done extremely poorly who were chronic myasthenics and who did not have a thymoma and who are taking small doses of prostigmine on a maintenance basis prior to surgery. Therefore, I do not believe that there is any definite relationship between the amount of drugs that the patient requires for control before surgery and their qualification as a good or poor risk patient for thymectomy. I think that the principal considerations in classifying a patient as a good or poor risk is the duration of the disease prior to surgery, the age of the patient, and the presence or absence of a thymoma. In the case of the older patient with a thymoma who has had the disease for a long time, I think that it is a matter of balancing the possibility of slight improvement against the risk of surgery and the postoperative complications; however, I do think that in some of these cases the risk should be taken. This has to be decided in each individual case.

DR. KNIGHT: From the pictures you have shown this seems like a relatively simple operation. Why is it that the patients tolerate the procedure so poorly?

DR. HANLON: It is a simple procedure and can oftentimes be accomplished in an hour if one does not enter either pleural space. This is why I like the median sternotomy approach; it is more rapid and more simple and also gives the patients less pain in the postoperative period. However, anything that one does to a myasthenic patient is a great risk, even to the giving of an anesthetic for an hour. I do not believe that their operative mortality is a direct result of the operative trauma.

DR. KNIGHT: Doctor Pfaff, will you discuss pathology of the thymus in myasthenia gravis for us?

DR. JOHN PFAFF: Among morphologists the present status of thymomas allows a wide field of speculation. As probably all know, there are widely divergent views as to whether a thymoma can be benign and have malignant potentials and, of course, its relationship to myasthenia gravis. These points are matters of considerable dispute among pathologists. This morning I would like to present briefly the most widely divergent views and allow you to draw your own conclusions.

I think these two divergent viewpoints depend largely upon whether one is a "lumper" or a "splitter." If you are a "splitter," as most people are who write textbooks, then you would probably tend to classify thymomas into subgroupings. The splitters want to classify them on the basis generally of the structural component. Here they do not always agree. Some think that the major component cell of the thymus gland is merely a lymphocyte. Others think that this is a specialized cell with possible secretory activity and they like the term "thymocyte." Another structural component of the thymus gland is the epithelial component which is that component comprised or derived from the third and fourth branchial arches. This is the part that is minimal in amount in the thymus gland and is the part that forms Hassel's corpuscles. The third and last element is the supporting structure of the gland, the fibrous element, the angiomous element. The people who tend to classify it in this manner would say that the tumor composed of the major cell in the thymus should be called a thymoma or lymphocytoma, that derived from the epithelial cells would be a carcinoma, and that from the supporting structure would be a fibroma.

Recently Lalla Iverson, from the Armed Forces Institute of Pathology, has made an attempt to reclassify these tumors. In doing so she reviewed the more recent A.F.I.P. cases, about fifty of them in number, in which there was adequate tissue and history for study. She believes that there is no such thing as a carcinoma of the thymus. She believes that the epithelial component of the thymus has not become malignant, and never becomes malignant. She believes that these tumors which have been classified as carcinoma of the thymus previously are really related to teratoma of the mediastinum and/or dysgerminoma or seminoma. She feels that there is no such thing as a malignant thymoma, at least not one that will metastasize. If such a tumor does kill, it kills by local or regional extension.

She further believes that there is no such thing as a primary lymphoma of the thymus gland, but rather that the lymphoma involves the adjacent structures of the mediastinum and then secondarily involves the thymus gland. She further feels that there is no such thing as a fibroma or a fibromixoma; if there is such a tumor in the mediastinum, again it involves the thymus gland secondarily and should not be classified as a primary tumor of the thymus gland.

What is her basic classification then for thymic tumors? She has attempted to classify these thymomas into two groups: (1) those that have associated myasthenia gravis, (2) those that do not have associated myasthenia gravis. Of the 27 cases of the 50 that she could term thymoma, in those in which there was myasthenia she felt there was a prominent epithelial response, particularly about the blood vessels.

Figure 2 shows the tumor in the patient presented this morning. The outer surface of this gross specimen is covered by glistening fat and one can see the lobulated pattern beneath and extending throughout the tumor. A cut section of the tumor demonstrates the homogenous, lobulated appearance with a grey-white color. This is apparently characteristic of a thymoma. The microscopic section of this tumor is shown in Figure 3. It shows the thick fibrous capsule on the surface and beneath it a homogenous replacement of tissue with an absence of the lobulation microscopically that occurs in the normal thymus gland. The replacement of tissue is by small, uniformly-sized cells which appear to be lymphocytes, or thymocytes if one prefers. There is no prominent reticulum cell hyperplasia nor endothelial cell hyperplasia. There are a few Hassel's corpuscles around the periphery, between the dense infiltration by lymphocytes. A slide from another case seen recently shows that Doctor Iverson would call "prominent epithelial hyperplasia." One can see that in almost every small field there are numerous nests of these large epithelial cells. She would claim that in this particular type of tumor myasthenia would be associated, as it was clinically. She does not speculate that these are particularly secretory cells, but probably feels, as Doctor Hanlon does, that the response of the thymus is secondary to another stimulus which may be the same as that which is causing the myasthenia gravis *per se*.

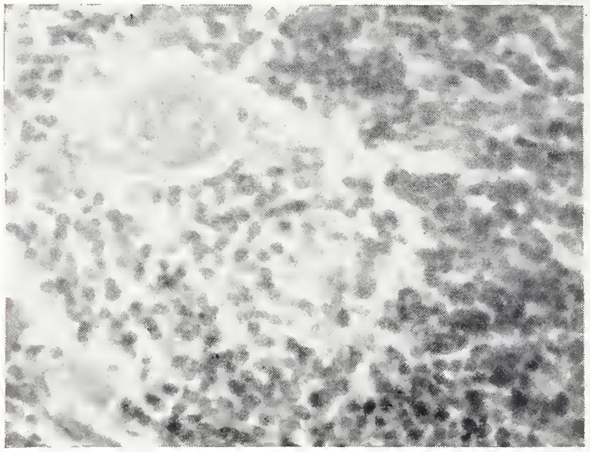

Fig. 3. Photomicrograph of section of thymoma under high power magnification.

Lest you be too taken with Doctor Iverson's work, I would like to mention that if one believes Doctor Iverson's work, then the patient presented this morning should not have had myasthenia gravis because this particular case did not show epithelial response. Investigators at Mayo's have reviewed their cases and also find exceptions to this apparent relationship; in their study the finding of prominent epithelial elements in patients with myasthenia gravis occurred with only about 75 per cent accuracy.

Dr. Knight: Just as there seems to be some relationship between the thymus gland and myasthenia gravis there seems to be some vague relationship between the thyroid gland and myasthenia gravis. Patients with severe forms of hyperthyroidism present with extreme degrees of weakness which may be misinterpreted as myasthenia gravis. I have asked Doctor Neu to give us the details of this relationship and differential diagnosis so that you will not fall into this pitfall.

Dr. Leo T. Neu, Jr.: A relationship seems to exist between myasthenia gravis and hyperthyroidism, but probably not between hyperthyroidism and myasthenia gravis, if one can draw that close a line of distinction. The association of myasthenia gravis with hyperthyroidism was first reported in 1908. When Thorner in 1939 reviewed 24 reported cases of supposed myasthenia gravis with coexisting hyperthyroidism, he could find only seven of these 24 in whom the diagnosis of myasthenia gravis was beyond doubt. Millikin and Haines, from the Mayo Clinic in 1953, reported 25 cases of myasthenia gravis associated with hyperthyroidism. When one reads these case reports they all seem well documented insofar as the diagnosis of myasthenia gravis. The diagnoses were established by curare tests or with prostigmine, Tensilon, or related substances used as the testing material. These authors concluded from their study that 5 per cent of patients with myasthenia gravis will have hyperthyroidism. They also concluded that only a small fraction of patients with hyperthyroidism have coexisting myasthenia gravis. Bartels and Kingsley in 1949 reviewed 12,962 cases of hyperthyroidism and found only four to have coexisting myasthenia gravis. This is the basis of the statement that I made that myasthenia gravis will be associated with hyperthyroidism in a significant percentage of cases whereas patients with hyperthyroidism rarely have myasthenia gravis.

TABLE 4

MYASTHENIA GRAVIS AND THYROTOXIC MYOPATHY

	Myasthenia Gravis	*Thyrotoxic Myopathy*
Creatinuria	+	+
Thymic Increase	Perhaps	Perhaps
Lymphocytosis	+	+
Ocular Palsies	Perhaps	Perhaps
Bulbar Palsies	Frequent	Occasional
Neostigmine	Much Relief	Depends on Author—Little or No Change
Weakness	Worse in P.M.	Same Throughout the Day
Eyelids	Drooped	Retracted
Electromyogram	Abnormal	Normal
Curare Test	Very Sensitive	Normal
Muscle Wasting	Rare	Present
Stretch Reflex	Hypo to Normal	Normal to Hyper
Distribution	Muscles Innervated by Cranial Nerves	Pelvic and Shoulder Girdle Musculature

How would one proceed in the treatment of a patient with myasthenia gravis and coexistent hyperthyroidism? There is a great deal of confusion in the literature concerning this point. There is a wide divergence of opinion as to the effect of antithyroid treatment and its effect on the myasthenic state. There are basically three opinions in this regard. The first is that the antithyroid drugs will reverse the myasthenic state in these individuals. Kowallis and Haines reported such a case in 1942. Sheldon and Walker had a similar experience with one case in 1946. The second opinion is that there is no alteration in the myasthenic state when one treats the concomitant hyperthyroidism. Bartels and Kingsley had this experience in four cases that they reported in 1949. Kowallis and Haines reported 2 such cases in 1942. Other authors have reported that the myasthenia gravis gets worse as the hyperthyroidism is treated, or that there is an improvement in the myasthenic symptoms as the hyperthyroidism develops whether this is a spontaneously developing hyperthyroidism or due to the administration of thyroid extract. One can see therefore that there is a wide divergence of opinion, or at least a wide divergence of experience.

Why this divergence of opinion? One possibility is that the clinical pictures as they were presented may not have truly represented the combination of myasthenia gravis and thyrotoxic myopathy. In some of the cases reported that I have reviewed, the presence of myasthenia gravis was not extremely well proven. Some of these cases may have been only thyrotoxic myopathy that had many features that seemed to be those of myasthenia gravis. This would explain why as the thyrotoxicosis was treated the "myasthenia gravis" improved. However, one can see from table 4 that the features of thyrotoxic myopathy and myasthenia gravis, although similar in many respects, are distinctive enough that the differentiation should not be impossible. However, it is readily seen that if both were present it would be extremely difficult to ascribe some of the findings and symptoms to one or the other since they may occur in both.

The only conclusions that I can make from this review is that if I were fortunate enough to treat a case of myasthenia gravis with concomitant hyperthyroidism I would not use a substance in the treatment of hyperthyroidism which would be irreversible, such as radioactive iodine or surgery, but would rather use antithyroid drugs such as propylthiouracil or Tapazole, which treatment could be stopped if things did not go well.

In regard to the occurrence of hypothyroidism and myasthenia gravis I could only find three such case reports. These were all reported from the Mayo Clinic in April of 1957. Because of the rare occurrence of this combination of diseases it is concluded that they occur together only by coincidence.

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President's Page

You who attended our 100th Annual Session last month know how important our committees are to the medical profession. It is there that items of interest and problems have their first airing.

I hope every newly appointed committee member and chairman will advise the office of his willingness to serve.

Committee work does seem laborious at times. It cuts into our little free time with our families. But without our committees to protect us and represent us we are vulnerable to other groups that constantly seek to make inroads into the practice of medicine.

Our committee appointments are made carefully in an attempt to have a cross-section representation of the state. Even at that with 20-odd standing committees and a few special ones, we still have just about 6 per cent of our nearly 4,000 MSMA members named to committee work.

This is some indication of the obligation that committee work imposes.

Not only have the newly chosen members been selected for their known interest, but they have been chosen with an eye to their objectivity. Often they must make decisions that are against their personal feelings because they realize that the good of our patients and our profession must come first.

After more than 20 years of active committee work in the MSMA, I speak from experience on this. I realize that we all have our obligations to our local medical groups, but someone must do yeoman work at the state level.

Only through hard-hitting, straight-thinking committee members can we steer our state organization through the troubled times ahead. And troubled times they seem to be. Medicine, as never before, seems to be under attack.

On all sides we see attempts by the federal legislators (such as the Forand bill) and other groups to restrict us. Luckily, the efforts we put forth at the state level are felt directly at the national level because the AMA is made up of state groups such as ours.

I wonder as I take office as your President for the coming year, what I did to deserve such a stormy picture.

But I intend to give it every bit of knowledge and background that I have. I will do my utmost as my good friend, Walter S. Sewell, retiring President, did.

I urge each one of you to give your committee members all the support they deserve. But do not be afraid to call when you need it! Bring them your problems!

Only through strong, informed committees can the right decisions be made for Missouri physicians.

EDITORIALS

Progress in Mental Health

Appointment of Dr. Addison M. Duval of Washington, D. C., to head a new program to improve the state mental hospitals was announced yesterday by the Missouri Medical Health Commission, according to the St. Louis *Post-Dispatch* of March 19. Dr. Duval will serve as a consultant until May 1959 at which time he will have fulfilled present committments.

This is welcomed by physicians of the state and the public. The St. Louis *Globe-Democrat* quoted Dr. Duval as saying "I'm very interested in getting the support of the Missouri State Medical Association and of St. Louis and Washington Universities' Schools of Medicine and of the University of Missouri School of Medicine." The Kansas City *Star*, reporting an interview with Dr. Duval, quoted him as saying "Treatment, education and research are the three key needs to a good hospital program," and added and emphasized that good hospitals alone comprise only a part of a well-rounded program.

Dr. G. Wilse Robinson, Jr., Kansas City, had the following to say in the *Bulletin of the Jackson County Medical Society* of March 29:

"It's nice to have a dream come true . . . especially if it is a rather important dream. This one didn't seem to be too important to any members of our Society, but it was of great importance to the several score psychiatrists in the State of Missouri and to ten to twelve thousand patients and their families. It was of importance to all the family physicians who, ever so often, had to send some patient to one of the state hospitals for the mentally ill. And now that dream has come true.

"A number of folks in the state, senators, elected representatives, physicians and public spirited citizens, recognized ten years ago that the state hospitals were in pretty sorry shape because they were being starved to death by short-sighted legislators and elected executives. Experience in other states had also shown that money alone did not solve the problems. A strong director was also needed, a skilled psychiatrist and a trained administrator, an expert in administrative psychiatry . . . the only type of person who could properly supervise the spending of the millions involved so that the patients received the greatest benefit. This was, of course, the ultimate objective.

"Many people were involved in this crusade, if we may call it that, but the breakthrough came when Jim Blair became Governor. Up to that time the forces pro and con were evenly balanced, and while appropriations were increased a few cents per patient per day, the head, the director, remained a political appointee who, as a layman knew nothing of therapy and care of sick people.

"A law rather typical of provincial and political thinking blocked any progress. This law limited the salary to such a low figure that no successful man or woman was interested, and it also stated that the director must be a resident of the state. All efforts to change this law were blocked until Jim Blair was inaugurated. Almost at once he let it be known that he would accept a change in the law that would permit his state to make real progress in taking care of sick folks.

"The law was changed and a commission of three psychiatrists and two public-spirited lay citizens was appointed by the Governor . . . and the search for an outstanding director was started. It took a long time to find a right man who was available. Many were considered, half a score were interviewed, and on March 18 the name of the new director was announced.

"He is Addison M. Duval, Assistant Superintendent of St. Elizabeth's Hospital in Washington, D. C., one of today's great administrative and clinical psychiatrists. He is stable, idealistic, experienced and personable. And very practical. He will do a great job and every citizen of the state will be proud of him.

"So many people are to be congratulated for this choice and the happy ending of the dream that we will not even try to mention them. But we will mention the people of the state who have made their voices heard and have brought this 'crusade' to a successful conclusion.

"Dr. Duval will need help from all those people who worked to put him in this responsible position. The forces of false economy and practical policies are still around and will still want to get their thumbs in this multimillion dollar political pie. Jim Blair cannot succeed himself. Some of the leaders in the state legislature will retire or be defeated . . . and man's memory is very short. Complacency can easily replace urgency.

"Every person who worked to put the doctor in office must continue to work, perhaps even harder, to make sure he can successfully do the job which the good people of Missouri have hired him to do.

"He cannot do it by himself, but he can do it if the sense of urgency in this matter is not replaced by complacency. It is still up to us."

Musings of the Field Secretary

Members of the Jackson County Medical Society were privileged to hear a most interesting and heartening lecture on the treatment of parkinsonism and related diseases given by Irving H. Cooper, M.D., of New York, at Hotel Bellerive in Kansas City, Tuesday evening, March 25. This was the 11th annual Vincent Park Williams Memorial Lecture presented to the Jackson County Medical Society since the establishment of the Memorial Fund in 1947. The fund provides for the expenses of a Doctor of Medicine to present an annual scientific program to members of Jackson County Medical Society and the physicians of Greater Kansas City. This lecture is the only scientific program to be presented by the Jackson County Medical Society during the year.

The evening festivities included a social hour, dinner and the formal program.

Walter S. Sewell, M.D., President, MSMA, attended this outstanding affair and made a few brief remarks on State Medical Association matters following the scientific presentation.

The accompanying picture shows those having a part in the evening program. From left to right: Dr. Robt. W. Forsyte, who introduced Dr. Cooper; the scientific speaker, Dr. Cooper; Dr. John Mayer, Jr., President, Jackson County Medical Society; Dr. W. S. Sewell, and Dr. Ralph Perry, Councilor of the 7th District, MSMA, who introduced Dr. Sewell.

It has been a privilege to travel with Dr. Walter Sewell some 10,000 miles over the state visiting county medical societies during his term of office as President of the Missouri State Medical Association. The interest manifested by members of these societies in having the President of the State Association attend one of their meetings has been most pleasant to observe.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

Missouri Academy of General Practice, 10th Annual Assembly, Chase Hotel, St. Louis, October 18-19, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—fourth Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—March, May, October and December.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets third Friday of each month.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

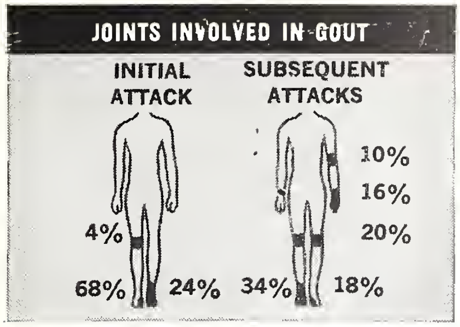
St. Louis Medical Society—third Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

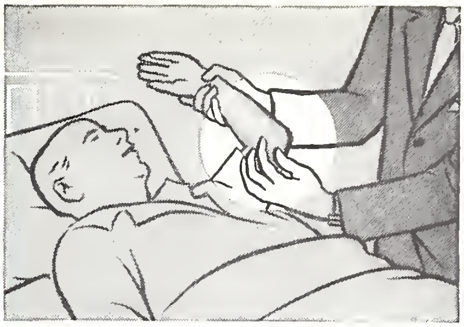
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

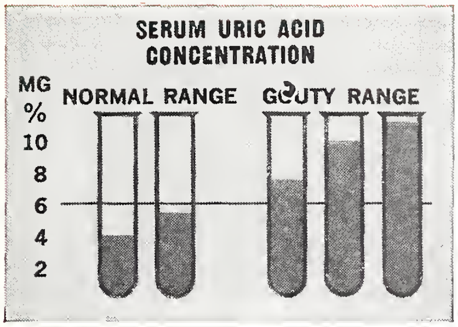
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.



1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



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News

Drs. **Charles A. Brasher** and **Henry C. Sweany**, Mount Vernon, will appear on a "Symposium on Fungus Diseases" on May 20 before the 54th annual meeting of the National Tuberculosis Association. Dr. Brasher will speak on "Course and Treatment" and Dr. Sweany will speak on "Pathology of Fungus Disease."

The 57th annual meeting of the Medical Library Association will be held in Rochester, Minnesota, from June 2 through June 6, 1958, with headquarters at the Hotel Kahler. The theme of the meeting will be "Advances in Medical Library Practice."

Missouri physicians participating in the program of the Eighth Annual Tri-State Clinical Conference of the Indiana, Illinois, Missouri Trudeau Societies at Marshall, Indiana, on March 7, 8, and 9 were **George H. Hobbs**, M.D., Mount Vernon; **Glenn O. Turner**, M.D., Springfield; **John Polk**, M.D., Springfield; Alan Bailey, M.D., Mount Vernon, and Mario Pianetto, M.D., Koch.

Richard A. Sutter, M.D., St. Louis, was invited by President Eisenhower to attend the President's 10th Anniversary Conference on Occupational Safety, held in Washington, D. C. March 25-27, 1958.

Mr. Elmer F. Nester, Executive Director of the St. Louis Blue Cross Plan since May, 1946, will retire on June 30. Mr. Nester, who had requested retirement on the advice of his physician, has served the Blue Cross Plan for 21 years.

A one-day seminar on "Gynecological Cancer" was presented April 10 at General Hospital No. 1, Kansas City. **A. N. Arneson**, M.D., St. Louis, conducted the seminar.

Speaking before the International College of Surgeons meeting in Los Angeles on March 13 was **Ralph R. Coffey**, M.D., Kansas City. Dr. Coffey's topic was "Planning of Incisions in Breast Surgery."

Eric A. Quer, M.D., Kansas City, spoke before the Decatur County Medical Society in Leon, Iowa, March 11. His subject was "The Differential Diagnosis of Masses in the Right Lower Abdomen and Their Management."

D. Elliott O'Reilly, M.D., St. Louis, president of the Missouri Society of Crippled Children and Adults, Inc., was the principal speaker at the kick-off banquet held in Hannibal on March 5, launching the 1958 Easter Seal campaign for the Marion County Society. Dr. O'Reilly commended the local society for its outstanding work and successful campaigns and also gave a brief review of the history of the state society.

"Modern Miracles of Healing" was the subject of an address given by **C. A. Brasher**, M.D., Mount Vernon, before the Greene County Tuberculosis Society on March 20.

Eugene Bales, M.D., Carrollton, gave a program on "Child Health" before the Carrollton Child Study Club on February 27.

Speaking before the 48th annual Buchanan County Tuberculosis Society on March 10 was **Laurence E. Wood**, M.D., Kansas City, president of the Missouri Tuberculosis Association. Dr. Wood's subject was "Unsolved Problems of Tuberculosis."

A joint dinner meeting of the Boonville Lions, Rotary and Kiwanis clubs on March 11 had as guest speaker **Roscoe Pullen**, M.D., dean of the University of Missouri School of Medicine. **B. M. Stuart**, M.D., Boonville, who arranged the program, introduced Dr. Pullen.

"Father Abraham," an orchestral suite composed by **Vincent T. Williams**, M.D., Kansas City, made its Kansas City premiere on April 1 at the Wyandotte High School, Kansas City, Kansas. The composition was played by the Kansas City, Kansas, Symphony Orchestra. The composition, a musical tribute to Abraham Lincoln, describes seven episodes from his birth to his death. **Mary C. Colglazier**, M.D., Kansas City, plays first violin in the symphony orchestra.

E. L. Spence, M.D., Kennett, recently spoke before the Kennett Lions Club on the tour he and Mrs. Spence made of South America. Dr. and Mrs. Spence visited Panama, Colombia, Ecuador, Peru, Chile, Argentina, Brazil, Uraguay and several islands in the West Indies.

Recently appointed director of the division of medicine at Jewish Hospital, St. Louis, was **Albert R. Eisenstein**, M.D. Dr. Eisenstein, who succeeds **Sol Sherry**, M.D., St. Louis, will assume his duties July 1.

The education committee of the Boone County Mental Health Association sponsored a series of four free

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.:
Nitroglycerin and Other Nitrites in the Treatment of
Angina Pectoris, Circulation (Jan.) 1958.

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lectures for expectant parents in March. **Dorothy Rodgers**, M.D., Columbia, was present at the meetings to answer questions posed by the group.

The third meeting of the Randolph County chapter of the Cerebral Palsy Association held in Moberly on February 25 heard **Robert Hasson**, M.D., Moberly, explain the causes of cerebral palsy and the nature of the affliction.

James H. Morroway, M.D., St. Joseph, has retired from the staff of State Hospital No. 2. Dr. Morroway came to the hospital in December, 1942, and was eligible for retirement under a state law which went into effect last year, setting 65 as the voluntary retirement age. Dr. Morroway has gone to Tama, Iowa, where he will make his home.

"The Effects of Radiation on Cancer and Other General Effects" was the subject of a talk given by **C. M. Waggoner**, M.D., Columbia, before the Cosmo-pals in Columbia on March 12.

A workshop on residential treatment centers for disturbed children was conducted by **Alfred K. Baur**, M.D., superintendent of State Hospital No. 1 in Fulton, and Dr. Jan Roosa, clinical psychologist in charge of the juvenile program at State Hospital No. 1 on March 22 in Jefferson City in connection with the 8th annual spring meeting of the Missouri Council on Children and Youth.

A state conference on the handicapped in Missouri has been scheduled for June 19, 20, and 21 in the Hotel Statler in St. Louis according to **L. M. Garner**, M.D., Jefferson City, chairman of the Missouri Health Council. Plans are underway, Dr. Garner said, to discuss all phases of those conditions which bring about sub-normal lives for many Missouri residents. The scope of the conference is unlimited, and discussions will range from physical and mental conditions to the rehabilitation of the handicapped. Persons interested in the problems of the handicapped in Missouri are welcome to attend the conference. There will be no registration fee.

Ronald F. Elkins, M.D., Springfield, president of the Greene County Medical Society, was the subject of a feature article in the Springfield *News* on March 16.

Guest speaker before the Hannibal Chapter of the state association of licensed practical nurses on March 13 was **J. H. Walterscheid**, M.D., Hannibal, who talked on "Nutrition and Diets and the Importance of Diets to Certain Diseases."

Russell Crider, M.D., St. Charles, recently was elected president of the St. Charles Parents' Group for retarded children.

Tranquilizer medicines were discussed for the Columbia chapter of licensed practical nurses at the March meeting by **McChesney Evans**, M.D., Columbia.

A panel of physicians composed of Drs. **Terry E. Lilly, Jr.**, Kansas City; **Albert E. Upsher**, Kansas City; and **C. C. Young**, Joplin, discussed "The Aspects of the Cytology Program in Relation to the Detection and Treatment of Cancer" before the Joplin branch of the American Cancer Society on March 18.

Fred O. Tietjen, M.D., Jefferson City, recently addressed the Registered Nurses Association at St. Mary's Hospital in Jefferson City. Dr. Tietjen spoke of the importance of postoperative nursing care following orthopedic surgery.

W. O. Finney, M.D., Chaffee, a member of the state board of medical examiners, attended the 54th Annual Congress of Medical Education and Licensure in Chicago in February.

At a recent meeting of the medical staff of Jefferson Memorial Hospital, Crystal City, **Emmett J. Senn**, M.D., Herculaneum, was reelected chief-of-staff. Other officers chosen were Drs. **R. H. Donnell**, Crystal City, vice president, and **J. Logan Mayfield**, Crystal City, secretary.

R. C. Schooley, M.D., veteran Odessa physician, announced his retirement from the practice of medicine on March 31. Dr. Schooley has practiced medicine 62 years, 44 of which have been in Odessa.

The Boone County Association for Mental Health at its March meeting heard **H. G. Freund**, M.D., clinical director at State Hospital No. 1 in Fulton, and Probate Judge Howard B. Lang, Sr., Columbia, discuss procedures in admitting patients to mental hospitals. Dr. Freund and Mr. Lang also discussed the difficulties connected with admission of patients.

E. B. Settle, M.D., Fairfax, spoke on opportunities now offered in the field of medical technology at the Fairfax high school on March 14. Later programs are scheduled for Tarkio College, Maryville State College, Tarkio and Rock Port high schools.

William J. Gillespie, M.D., Creve Coeur, recently was named chairman of the public education committee of the St. Louis Unit, American Cancer Society. Two other St. Louis physicians on the committee are **John W. Fries**, M.D., and **J. Earl Smith**, M.D.

O REMEMBER ABOUT

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met March 13, at the Strand Hotel, Chillicothe. Including members, Auxiliary members and visitors about 50 were present. The meeting was called to order and the Woman's Auxiliary presented a Doctor's Day Program with clever dancing and lovely songs (some of them composed for this occasion by Auxiliary members). Also presented was a poem written for Doctor's Day. Each doctor was presented with a boutonniere by the Auxiliary. The President, Dr. Charles M. Grace, complimented the Auxiliary on their excellent and unique program and their attendence and interest in their Auxiliary, which he said was one of the best.

The scientific program was presented by Dr. E. Kip Robinson, Kansas City, who discussed "Carcinoma of the Breast." An excellent and scientific presentation with views of numerous cases and followed by questions and discussion.

It was regularly moved, seconded and carried by unanimous vote that a meeting be held April 10.

Minutes of the last meeting were read and approved. There being no further business, the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

A dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held at the Woodland Hospital in Moberly, Thursday night, March 13.

Dr. J. Will Fleming, Moberly, discussed "The Treatment of Diabetes With Oral Diabetic Medications." He spent some time in discussing the use of Orinase in the oral treatment of diabetes and pointed out certain contraindications for use of the drug. He also mentioned in particular a new drug, DBI, which has now been observed for about a year. He indicated that it has some added value of being useful in some cases in preference to Orinase.

Members present were Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. G. C. Rice, Brunswick; Dr. P. V. Dreyer, Huntsville; Dr. J. E. Campbell, Dr. D. E. Eggleston and Dr. Howard S. Miller, Macon; Dr. F. A. Barnett and Dr. G. M. Ragsdale, Paris; and Dr. W. D. Chute, Dr. C. C. Cohrs, Dr. J. Will Fleming, Dr. T. S. Fleming, Dr. A. P. Rowlette, Dr. C. C. Smith, Dr. S. R. Szymanski and Dr. Robert H. Young, Moberly.

Robert H. Young, M.D., *Secretary*

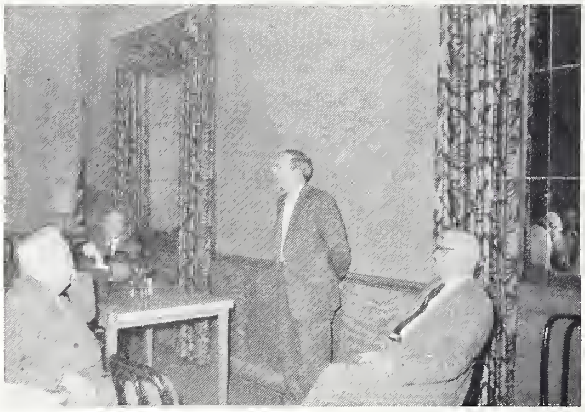
Marion-Ralls-Shelby County Medical Society

A dinner meeting of the Marion-Ralls-Shelby County Medical Society was held at the Mark Twain Hotel, Hannibal, Tuesday evening, March 18.

The evening festivities began with a social hour, followed by dinner and then a scientific program.

The speakers for the evening were Ned Rodes, M.D., and Richard E. Johnson, M.D., of the Ellis Fischel Cancer Hospital, Columbia. Dr. Rodes, chief surgeon of the Hospital, spoke on "The Management of Gastrointestinal Tract Hemorrhages From the Surgical Viewpoint." Dr. Johnson, chief pathologist, discussed "Operability of Breast Cancer." These were excellent presentations and a lively discussion followed.

Dinner preceded the meeting.



Drs. Rodes and Johnson were speakers.

At the close of the scientific program a short business session was held. The Society will meet again in May.

J. H. Walterscheid, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society held its regular meeting on February 18 at Jefferson Memorial

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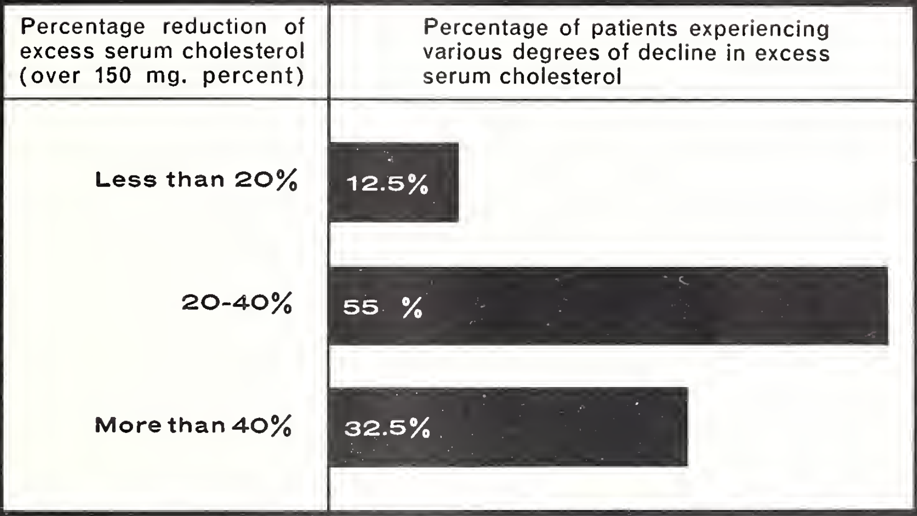

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Hospital, Crystal City. President Dr. Karl V. McKinstry, presided.

The scientific program was initiated by Dr. Carl E. Rice, Director of the Jefferson County Health Unit. He discussed at some length the various public health activities and accomplishments of which he was justly proud. However, some of the doctors present did not agree that some of the activities of the Health Unit were in the best interest of the public welfare. A rather spirited discussion followed and apparently the differences of opinions were smoothed over. The two areas of conflict were:

(1) The activities of the Rheumatic Fever Clinic which involves treatment as well as prevention of the disease. Some doctors felt that public health activities should be limited to prevention.

(2) The free fluoro-roentgen chest films at the Health Unit are available to anyone at any time. Some of the doctors present stated that a negative chest film report sometimes gave patients a false sense of security and further investigation of their complaints, in a few instances, was reported to have been delayed until serious complications developed.

Dr. C. W. Meinershagen, of the Missouri State Division of Health, proposed that a pilot multi-phasic screening program be initiated in Jefferson County under the control of the Jefferson County Health Unit. He asked for the approval and cooperation of the local Medical Society. A written statement of what it was all about was asked for and approval deferred until further study, promising a decision at our March meeting.

Donald E. Pratt, Executive Secretary of the Missouri Tuberculosis Association, was next introduced and made a few brief remarks.

Last but not least, Dr. Lawrence E. Wood, Kansas City, President of the Missouri Trudeau Society, gave a talk on the value of tuberculin testing and emphasized the superiority of the intradermal over the patch test.

Doctors present other than the speakers were: Drs. B. Bolgar, R. H. Donnell, T. A. Donnell, Harold Donnell, J. L. Mayfield, Karl V. McKinstry, J. F. Rutledge, E. J. Senn, Frank Sexauer, and Harry Yoskit.

John F. Rutledge, M.D., *Secretary*

Lincoln-St. Charles County Medical Society

Twenty physicians attended a dinner meeting of the Lincoln-St. Charles Medical Society at the Southern Air in Wentzville, Thursday night, March 20.

Dinner at the Southern Air had preceded the program.

Following an enjoyable social hour and dinner those present were privileged to hear Dr. Walter S. Sewell, Springfield, President of the State Medical Association, speak on "Your State Medical Association, Its Program and Problems."

Dr. Sewell was warmly thanked by Dr. Canty, President of the Society, for appearing before the group and discussing some of the important problems facing organized medicine.

Dr. Sewell was the speaker.

Paul Rother, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The Audrain County Medical Society held a joint dinner meeting with the Callaway and Montgomery County Medical Societies, Monday night, March 17, at 7:30 p.m., at the Pilot Lounge, Air Park Motel, Mexico.

After an enjoyable dinner, the meeting was called to order by the President, Dr. Leonard L. Davis.

Dr. Davis introduced Eugene M. Bricker, M.D., Department of Surgery, Washington University School of Medicine, St. Louis, as the guest speaker for the evening. Dr. Bricker spoke on "Diagnosis of the Acute Abdomen." This was an interesting subject, and was enjoyed by all.

The following were present: Drs. Eugene M. Bricker, St. Louis; A. K. Baur, Thomas Brewer, R. N. Crews, Erwin Leonhardt, James E. Hill, Frank Mickevicius, S. S. Monosson, and G. D. Romney, Fulton; Lewis Bealer, L. L. LaChance, and Robert Ward, Centralia; Ned Rodes, Columbia; Leonard Davis, Thomas Dwyer, Lawrence Epple, Ernest Gantt, J. Frank Jolley, Ben Jolly, William Jolly, Harold Lankford, Harry O'Brien, and Ed S. Wallace, Mexico.

There being no further business, the meeting was adjourned.

Harold D. Lankford, M.D., *Secretary*

Boone County Medical Society

Dr. Walter S. Sewell, Springfield, President of the Missouri State Medical Association, was guest speaker at the regular meeting of the Boone County Medical

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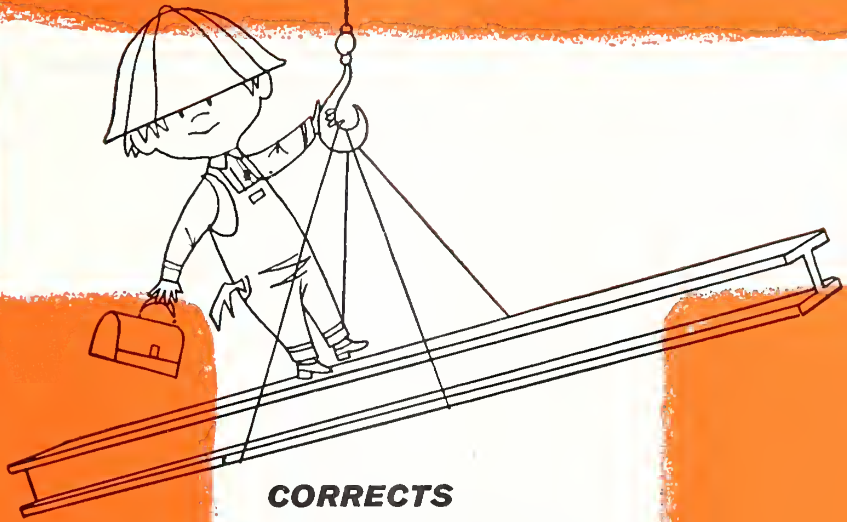

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l-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
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Society at the University of Missouri Medical Center, Tuesday night, March 4.

Dr. Sewell discussed the organizational set up of the State Medical Association, as well as some of the important problems under consideration. He expressed the hope that many would be present at the State Association Meeting in St. Louis April 13 to 16.

The meeting broke up slowly.

The President of the Association was speaker.

Mr. T. R. O'Brien and Mr. Ray McIntyre from the State Association office accompanied Dr. Sewell.

Leroy J. Miller, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

Joint Society Meeting

One hundred and thirty-five people attended a joint dinner meeting of medical societies in the Central Missouri area at the Whiteman Air Force Base in Knob Noster, Wednesday night, March 19. Those in attendance included members of the County Medical Societies in the area and their wives, and the medical, dental and nursing personnel at the Air Force Base. This important affair was held in the Officers Club at the Base, beginning with a social hour at 6:30 p.m. Following an excellent steak dinner appropriate introductions were made and then separate meetings were held for the doctors and for the ladies.

Samuel P. W. Black, Department of Surgery, University of Missouri School of Medicine, spoke to the doctors on "Examination of the Unconscious Patient."

The dinner was held at the Officers Club. Whiteman's Air Force Base.

The scientific program was presented by Dr. Black.

The ladies were entertained by a special musical program presented by the students of Central Missouri State College at Warrensburg.

This particular meeting at the Base has become an annual affair and is looked forward to by the physicians in Central Missouri, which composes part of the sixth councilor district. It is contemplated that next year this particular meeting will be changed to an afternoon and evening session and thereby offer a more comprehensive program.

West Central Missouri Medical Society

The West Central Missouri Medical Society held its March meeting at the Country Club in Nevada, Thursday night, March 13. The evening festivities began with a social hour followed by dinner and the program.

Following a short business session the featured speaker for the evening, Dr. Walter S. Sewell, President of the State Medical Association, was introduced. He discussed certain features of the organizational set up of our State Medical Association and mentioned a number of problems with which we are faced.

Dr. Sewell addressed the group.

Doctors and their wives attended the meeting.

Twenty-five persons were in attendance, including doctors and their wives. Dr. and Mrs. Vern Bickel, Lamar, and Mr. Ray McIntyre, Field Secretary of the State Association, were guests.

J. C. MOODY, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

District Meeting

A dinner meeting of the Eighth Councilor District of the Missouri State Medical Association was held at the Kentwood Arms Hotel in Springfield on Thursday, March 6.

The festivities of the evening began with a social hour at 6:30 p.m. Dinner was served at approximately 7:30 p.m. followed by the program at 8:30.

The evening program featured a special panel discussion entitled "The Program and Problems of Your State Medical Association." The moderator for the panel was Dr. W. W. Tillman, Councilor of the district. Participants on the panel were: Dr. W. S. Sewell, Springfield, President, M.S.M.A.; Mr. T. R. O'Brien, Executive Secretary, M.S.M.A.; Mr. Lemoine Skinner and Mr. Ed Schneider of St. Louis, P.R. Counsel for the M.S.M.A.

The panel discussed such matters as Medicare, Vendor Medical Care for Welfare Recipients, Blue Cross-Blue Shield, and a single licensure proposal for Missouri. There were numerous questions addressed to the panel from the audience which served to bring forth additional points designed to clarify various phases of the subject under consideration.

Dr. Tillman presided.

Seventy-five physicians representing the Eighth Councilor District were in attendance.

W. W. TILLMAN, M.D., *Councilor*

One hundred thirty-five were in attendance.

Ozarks County Medical Society

A dinner meeting of the Ozarks County Medical Society was held on Tuesday night, March 11, at LeDuc's Smorgasbord in Mount Vernon. Those present numbered thirty-five including doctors and their wives.

The business session and scientific program were held in the staff room of the Missouri TB Sanatorium, where an excellent presentation on the subject of "Lung Tumors and Type of Treatment Available," was presented by Dr. John Polk, of Springfield, and the surgical staff of the Sanatorium. A discussion of the pathology of these tumors was given by Dr. Henry Sweany of the Sanatorium staff.

A. J. GRAVES, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri County Medical Society

A dinner meeting of the members and their wives of the Mid-Missouri Medical Society was held in the Pine Room of the Greyhound Bus Station in Rolla, Thursday night, March 27.

The scientific program sponsored by the Missouri Academy of General Practice was given by Dr. Robert W. Bartlett, St. Louis. His subject was "The Diagnosis and Management of Bleeding From the Rectum." Descriptive slides and x-ray films were used effectively in presenting this subject.

M. K. UNDERWOOD, M.D., *Secretary*

South Central Counties Medical Society

A dinner meeting of the South Central Counties Medical Society was held at Harry's Steak House in West Plains on Wednesday night, March 26. Guests at the meeting included wives of the doctors and the members of the Board of Trustees of the New West Plains Community Hospital.

Physicians present posed for a picture.

Hospital board members and their wives also attended the dinner.

Out of the area guests were Dr. W. S. Sewell, Springfield, President of the State Medical Association, and Mrs. Sewell; Dr. J. H. Summers, Lebanon, Councilor, and Mrs. Summers; Mr. Ray McIntyre, Field Secretary, Missouri State Medical Association, and Mr. George Banjak of the St. Louis Blue Cross Plan.

Following dinner considerable time was given to the discussion of the new hospital medical staff rules and regulations and other matters concerning standards for the operation of the hospital. Following the completion of the hospital discussion Dr. Sewell and Dr. Summers spoke briefly about the Annual Session of the Missouri State Medical Association to be held in St. Louis April 13-16. They pointed out a number of important matters to be discussed at the sessions of the House of Delegates and urged a good attendance from our society.

A. C. AMES, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Pemiscot County Medical Society

A dinner meeting of the Pemiscot County Medical Society was held at the Memorial Hospital, Hayti, on March 13.

The meeting was called to order by Dr. Joseph Poff. Last month's minutes were read and approved. Members present were: Dr. Aquino, Dr. Bryant, Dr. Cain, Dr. Caldwell, Dr. Chapman, Dr. O. W. Cook, Dr. Gordon Duckworth, Dr. John Duckworth, Dr. Gubin, Dr. Lamb, Dr. McCoy, Dr. Morris, Dr. L. B. Painter, Dr. Andrew Painter, Dr. Joseph Poff, Dr. Nathan Poff, Dr. Shanahan, Dr. Shirey, and Dr. Grable. Visitor present was Dr. Charlie Long from Memphis. The speaker was Dr. Charlie Long, who was introduced by Dr. Gordon Duckworth. Dr. Long gave an interesting discussion on "ENT Diagnoses and Common ENT Problems."

Under new business, a letter was read from a Brown Shoe Company representative regarding excessive and unnecessary hospitalization and practices concerning holders of Brown Shoe Company Hospital insurance.

Dr. Joseph Poff volunteered to be chairman for next month's program committee.

A motion was made by Dr. O. W. Cook and seconded by Dr. Gordon Duckworth that in the future $2.50 be paid per each hospital employee, who helped with the dinner during the meetings. This money was to be paid from the treasury. This motion was passed in the usual fashion.

Having no further business at hand, the meeting was adjourned.

JOHN K. DUCKWORTH, M.D., *Secretary*

Mineral Area County Medical Society

On Thursday night, February 27, a dinner meeting of the Mineral Area County Medical Society was held at the State Hospital in Farmington. Preceding dinner a social hour was held so that members of the society could personally meet Dr. W. S. Sewell, Springfield, President of the State Medical Association, who was the featured speaker for the evening's program.

An excellent dinner was served in one of the special dining rooms of the State Hospital following which Dr. Sewell was introduced by the President of the society, Dr. Mullen. Dr. Sewell discussed the organizational set-up of the Association and explained in detail

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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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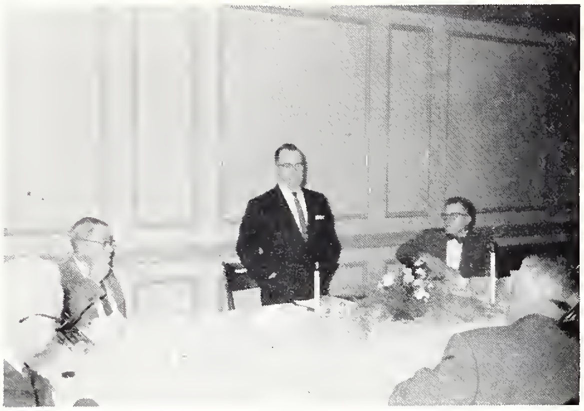


Dr. Sewell addressed the meeting

some of the problems confronting the Association at this time. He expressed hope that many of our members would attend the Annual Session in St. Louis on April 13 through 16.

Dinner preceded the program.

Mr. Ray McIntyre, Field Secretary of the State Medical Association, accompanied Dr. Sewell to the meeting.

Jack L. Foster, M.D., *Secretary*

DEATHS

Claiborn, Edward G., M.D., Camdenton, a graduate of Missouri Medical College, St. Louis, 1896; member Camden County Medical Society; aged 84; died March 11.

Fineberg, Maxwell, M.D., St. Louis, a graduate of McGill University, Montreal, Canada, 1923; member of St. Louis Medical Society; aged 57; died March 8.

Kotkis, Alexander J., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1921; member of St. Louis Medical Society; aged 63; died March 23.

Kurtzeborn, Edwin E., M.D., Tampa, Florida, a graduate of Marion-Sims Medical College, St. Louis, 1899; member of St. Louis Medical Society; aged 85; died March 14.

Ryland, Caius T., M.D., Lexington, a graduate of Beaumont Medical College, St. Louis, 1897; member of Lafayette-Ray Counties Medical Society; Past President of the Missouri State Medical Association; aged 83; died February 16.

Sharp, William L., M.D., St. Louis, a graduate of St. Louis College of Physicians and Surgeons, 1904; member of Saline County Medical Society; aged 80; died January 29.

Tuttle, Floyd W., M.D., Clinton, Iowa, a graduate of University of Missouri School of Medicine, 1909; member of Jackson County Medical Society; aged 81; died March 12.

Jordan, Ray B., M.D., Windsor, a graduate of University of Louisville, 1933; member of Henry County Medical Society; aged 53; died March 17.

NEW MEMBERS

Acuff, William J., M.D., 400 Carleton Avenue, Caruthersville. Pemiscot County Medical Society.

Barnard, John L., Jr., M.D., 4312 J. C. Nichols Parkway, Kansas City. Jackson County Medical Society.

Chandler, Robert A., M.D., 701 East 63rd Street, Kansas City. Jackson County Medical Society.

Creditor, Morton C., M.D., Menorah Hospital, Kansas City. Jackson County Medical Society.

DeLashmutt, Edward J., M.D., General Hospital No. 1, Kansas City. Jackson County Medical Society.

DelVillar, E. J., M.D., 109 West Missouri Avenue, St. Joseph. Buchanan County Medical Society.

Geha, Braham J., M.D., General Hospital No. 1, Kansas City. Jackson County Medical Society.

Grable, James D., M.D., 120a East Main, New Madrid. Pemiscot County Medical Society.

Griffith, Harry M., M.D., Columbia. Boone County Medical Society.

Hasselblad, Oliver W., M.D., Grim-Smith Hospital, Kirksville. North Central Counties Medical Society.

Hilton, Paul E., M.D., Grim-Smith Hospital, Kirksville. North Central Counties Medical Society.

Hitchcock, Waldo P., M.D., Columbia. Boone County Medical Society.

Humphrey, James, M.D., 7200 Manchester Avenue, St. Louis 17. St. Louis Medical Society.

Knotts, Halleck C., M.D., Valley Forge Army Hospital, Phoenixville, Pennsylvania. St. Louis Medical Society.

Kyger, John E. J., M.D., 701 East 63rd Street, Kansas City. Jackson County Medical Society.

Leahy, John G., M.D., 1617 S. Brentwood Blvd., St. Louis 17. St. Louis Medical Society.

McDonald, Terrence J., M.D., Tipton. Moniteau County Medical Society.

McDonald, Victor G., Jr., M.D., 241 Plaza Time Building, Kansas City. Jackson County Medical Society.

Nelson, Bentley A., M.D., 305 West 43rd Street, Kansas City. Jackson County Medical Society.

Piccione, Leonard M., M.D., 18 South Kingshighway Blvd., St. Louis 8. St. Louis Medical Society.

Poff, Nathan L., M.D., 115 Ward, Caruthersville. Pemiscot County Medical Society.

Shinkawa, Shigeo, M.D., St. Charles Clinic, St. Charles. Lincoln-St. Charles Counties Medical Society.

Teare, Max E., M.D., 722½ Francis Street, St. Joseph. Buchanan County Medical Society.

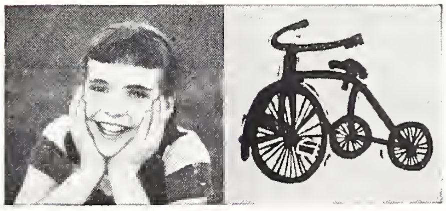
Tyler, Wendell H., M.D., 200a North Main, St. Charles. Lincoln-St. Charles Counties Medical Society.

Vescovo, Paul C., Jr., M.D., Smithville. Clay County Medical Society.

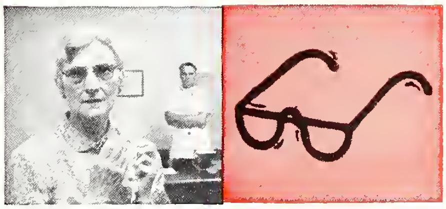
in each of these indications
for a tranquilizer . . .

SR is a cardiac patient. His doctor put him on ATARAX because (+) it is an anti-arrhythmic and non-hypotensive tranquilizer.

Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+) it lowers gastric secretion while it tranquilizes.



Asthmatic JL used to have frequent tantrums followed by acute bronchospasm. Her family doctor tranquilized her with ATARAX because (+) it is safe, even for children.



Senile anxiety and persecution complex dogged Mrs. K. until her doctor prescribed ATARAX Syrup. (+) It tastes good, and it's a perfect vehicle for Mrs. K's tonic.

Dosage: Children, 1-2 *10 mg.* tablets or 1-2 tsp. Syrup t.i.d. Adults, one *25 mg.* tablet or 1 tbsp. Syrup q.i.d.

Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

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COLUMNIST SOKOLSKY LAUDS PHYSICIANS

Not all newspaper columnists dislike physicians as evidenced by the following syndicated column carried March 13 by the St. Louis *Globe-Democrat.* While he does not say so, Columnist George E. Sokolsky evidently was writing in rebuttal to the scathing attack made on medicine February 4 by another columnist, Jim Bishop. Mr. Sokolsky's article:

"Recognizing that half a century ago one who had my physical troubles did not long survive them, how can I worry about the fact that doctors, like the rest of us, charge for their services? When I have quarrelled with them, it has not been about the bills. Considering that I am alive and able to do my work every day as thousands of others are who have heart ailments, I am sure than an undertaker would have charged more with less satisfactory results.

"I write this because I have been reading a general condemnation of doctors as a class. That is about as sensible as condemning lawyers, clergymen, teachers, businessmen or labor leaders as a class. Even in my own profession, there are persons who are not so perfect. Of course, there are bad apples among them, just as Lucifer was once an angel. But if we are to generalize, without prejudice, the medical profession, on the whole, has done more for humanity, on a smaller return than any other professional group.

"If the medical staff of our hospitals had to be paid wages for all the work the physicians and surgeons do free of charge, on the assumption that they are everlastingly learning and that in their profession the best way to learn is by doing—no hospital would have sufficient funds to operate.

"One day I needed a doctor urgently. The man who came was young, engaging, obviously starting life. He charged me a few dollars. He became our family doctor. The years pass and this doctor decides that he wants to work in an experimental field. He takes a year off, actually depriving himself and his family of income. He writes a book, becoming a specialist and devoting the greatest share of his waking time to continued experimental work.

"When I was in the hospital, I realized how much time he spent with his rats in the laboratory. I was then not his patient but a friend. I had been handed over to strangers whom I did not know but I can say this that the great man who was brought in to determine whether I was alive or dead and who, my wife told me, stayed two and a half hours before it could be decided, only charged $100 for the visit. Had a wrong diagnosis been made that night I would now be kicking up crocuses in a cemetery. My troubles were like that.

"I know a country general practitioner who does at least 100 miles a day in his car, summer or winter, in heat or in snow, I have known him to drive a suffering man 10 or 20 miles to a hospital at 80 or 90 miles an hour, once burning out the motor of a new car to do it. I have known him during the winter to motor to a university 40 or 50 miles away to take a refresher course, let us say, concerning the heart, so that he can take care of the summer patients, some of whom have heart troubles.

"The farmers pay him what they can. Sometimes they pay in things they grow because money is scarce. Some do not pay at all. The town contributes a certain amount, very small, because he is the town health officer. So highly is he regarded that some summer patients insist upon paying New York rates. He is a competent man.

"Why have I had such good fortune to encounter men who have not charged me more than their services were worth? Compare the total cost of cigarettes or cosmetics or pleasures during the year to the charge of a surgeon who every time he has to cut a stomach knows that the risk is extraordinarily great and that each operation takes a toll of his own nervous system. For every doctor knows that while the operation may be a success, the patient may die of side causes.

"But let us face it; I am alive because a few dedicated human beings work day and night to discover how to keep such as me alive. To me, their services are cheap at any price, for death is final and it is finally expensive. It takes all. Let those who complain of bills look to their own charges."

CANCER REMAINS A TOUGH FOE

The following roundup on cancer research ran March 29 in the Kansas City *Star.* It was written by Conwell Carlson, medical reporter for the paper. The article:

"Boston, March 29.—Cancer has been crowded into a corner by the research fight against it, but is not yet licked. It keeps bouncing back, tantalizing the scientists with new mysteries.

"That's the main impression this reporter gets from the American Cancer Society's tour of research projects in many medical centers, now under way.

"As was anticipated when the all-out attack was launched 10 years ago, getting at cancer is about the same as getting at the secrets of life itself, unraveling basic processes hidden in the cells.

"The search largely has turned out that way, and it must be emphasized that whether the cause and cure of all cancers evade science after another 10 years, or longer, the gain in basic knowledge from the digging will be so valuable as to make the millions spent seem dirt cheap.

"And, although the last quirk in cancer may be sought a century from now, as some skeptics predict, the search itself will make the greatest story in man's history. It will be a monument to his curiosity, intelligence, ingenuity and perserverance in learning how atoms work in molecules, how molecules work in cells, and how the chemical agents called enzymes, vitamins, hormones and other substances affect cell health.

"Contrast this story and its inestimable benefits to our children and grandchildren in the future, with the few hundred millions spent so far in the cancer search, and what are we quibbling about? In the last decade the cancer society put 60 million of its voluntary gift dollars—and the National Cancer Institute at Washington put about 100 million tax dollars—into the search. Maybe in the next 10 years the investment will be doubled or tripled.

"So what? This is peanuts spent for know-how on saving life compared to the billions put into military budgets and civilian luxury spending. Workers in medical research are aware of this contrast. Mostly they are content to keep busy on budgets just big enough to keep their projects going. To them the quest holds satisfaction not measurable by dollars.

Progress in SYNTHETIC CHEMISTRY
EQUALS
Progress in CHEMOTHERAPEUTICS

"It has a high degree of clinical safety. . . It is considered to be the preferred antimalarial drug for treatment of disorders of connective tissue, because of the low incidence of gastrointestinal distress as compared to that with chloroquine phosphate."[1]

"... Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

"... the least toxic of its class ..."[3]

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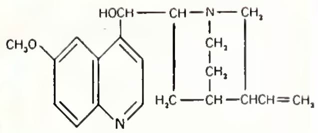

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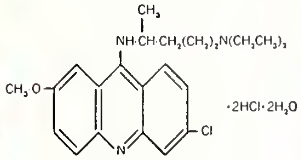

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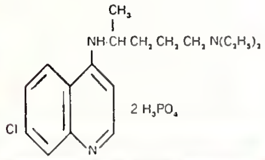

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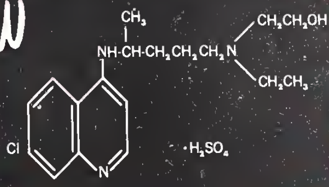

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SUPPLIED: Tablets of 200 mg., bottles of 100.

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ES:
el, A.L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
, A.G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
et, Theodore: Arch. Dermat. 73:572, June, 1956.

Atabrine (brand of quinacrine), Aralen (brand of chloroquine), and Plaquenil (brand of hydroxychloroquine) trademarks reg. U. S. Pat. Off.

DEEP IN A ROUTINE

"Biology is Greek for the study of life, and mostly the cancer search has become just that—painstaking inquiry into how life starts, grows and replenishes itself in endless cycle. The departments of science involved in this search include chemistry, physics, physiology, pharmacology, pathology and many others, intermeshing here and there as the need arises.

"The news today is that biology in America is in full bloom, cramming for the finals. Its tools are both factual and speculative, its goal the understanding of micro-organic processes that make health and disease. Someone has said medicine of the 20th century is charting the chemical anatomy of man as contrasted with his physical anatomy previously charted for medical teaching.

"Another analogy is that in medical science today the books of the New Testament, the micro-chemical, are being added to the Old Testament of physical anatomy to make the complete medical Bible.

TOWARD CLEARER PICTURE

"The pieces of man's micro-chemical puzzle are starting to fall into place, is the way Patrick M. McGrady, science editor for the cancer society, puts it. Or one can take the first line in the National Cancer Institute's report on last year's work:

" 'Research continues to narrow the gap between cancer and man's ability to control it.'

"As most everybody knows, many localized cancers, of skin or organs reachable by surgery or radiation in time to halt their spread, are curable. But the disseminated cancers, abnormal wild cells that course through lymph and blood vessels to all parts of the body, continue to baffle the healers and are the quarry sought by the big search. Drugs that halt them for a while are numerous and stories about them and basic experiments aimed at cure rather than control of wild cells are what the cancer society's tour is about. These stories will follow.

"Uncontrolled cancers kill about 250,000 Americans each year. Why does this awful toll continue? A simplified answer, illustrating the enormous challenge cancer poses is that the human body contains some 4,800 trillion cells in any of which, or in groups, a disorder can arise from scores of not yet fully understood causes.

REASON FOR CAUTION

"No wonder the veterans in cancer cell studies are only cautiously optimistic at this stage. After a decade of work with new drugs that give months or a few years of added life to youngsters hit by the leukemia, cancer of blood cells, Dr. Sidney Farber of Harvard, director of the Children's Cancer Research Foundation in Boston, summarized yesterday:

" 'Resistance developed by the cancer cell to a drug that at first repressed it is one of the most important stumbling blocks we have recently encountered.

" 'I have come to the conclusion we do not yet know enough about the chemistry of the cell, or about the action of drugs aimed against it, to predict with certainty what kind of drug should be developed for best effect.

" 'Predictions are always requested as to when the cures for cancers will be found. Even though we have witnessed "break-throughs" on cells by certain drugs for limited months or years, I feel that optimism for complete solution of the problem is not justified.

" 'An immense amount of work lies ahead for men in the various basic sciences as well as clinical investigators. A truly rational approach is not yet at hand.' "

OZARK EMPIRE CANCER CONFERENCE

The third annual Ozark Empire Cancer Conference will be held at the Kentwood Arms Hotel, Springfield, on May 23, to which all physicians are invited. The program will begin with a scientific session at 3:00 p.m., followed by a social hour at 6:00 p.m., a conference dinner at 6:45 p.m. and a scientific program in the evening.

The program follows:

John F. Christianson, M.D., Department of Internal Medicine, University of Kansas School of Medicine, Kansas City, Kansas, "The Chemotherapeutic Agents in the Treatment of Malignant Disease."

Frank F. Albritten, Jr., M.D., Professor of Surgery and Chairman of the Department of Surgery, University of Kansas School of Medicine, "The Diagnosis and Treatment of Cancer of the Lung."

William L. Valk, M.D., Professor of Urology, University of Kansas School of Medicine, "The Diagnosis and Management of Kidney Tumors."

Francis A. Mantz, Jr., M.D., Department of Pathology, University of Kansas School of Medicine, "Exfoliative Cytology, Especially as Applied to Office Practice."

R. F. Elkins, M.D., president of the Greene County Medical Society, will preside at the conference dinner. The arrangements committee is composed of Dallas D. Anthony, M.D., chairman; Jerry H. Allen, M.D., MacDonald Bonebrake, M.D., and R. Ned White, M.D.

The conference is sponsored by the American Cancer Society, Missouri Division; the Greene County Medical Society and the Missouri Academy of General Practice. There is no registration fee and Category II is allowed members of the American Academy of General Practice.

ARE YOU FIT TO DRIVE?

The American Medical Association has a new booklet out that will help drivers decide. The colorful booklet titled "Are You Fit to Drive?" uses the cartoon approach to tell its story. Drivers are urged to contact their physicians if they are in doubt about their fitness.

Prepared by the AMA's Committee on Medical Aspects of Automobile Injuries and Deaths in cooperation with the Center for Safety Education at New York University, the booklet contains information about those conditions that can adversely affect driving skills —emotional upsets, driver attitudes, sleepiness, medicines, faulty vision, certain nerve and heart disorders, diabetes, old age and drinking.

For distribution through physicians' offices, the booklet currently is available from the Association of Casualty and Surety Companies, 60 John Street, New York 38, N. Y. Price is $4.60 per 100 copies, regardless of quantity.

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less tension

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

Dosage and Supplied: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100.

CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

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From the Medical Schools

WASHINGTON UNIVERSITY

Medical Society Meeting

Three research papers were presented at a meeting of the Washington University Medical Society, Wednesday, March 19, in the auditorium of the David P. Wohl Jr. Memorial Hospital. Dr. Matthew W. Noall, instructor in experimental obstetrics and gynecology at Washington University School of Medicine, reported on "Endocrines and Amino Acid Metabolism." Research for this paper was conducted in collaboration with Dr. David Kipnis, assistant professor and Markle scholar in biochemistry in medicine. "An Electron Microscopic Study of Pituitary Basophiles in the Guinea Pig" was discussed by Dr. Roy R. Peterson, assistant professor of anatomy. Dr. Carl Calman, senior resident in surgery at Veterans Administration Hospital, spoke on "Serum Lactic Dehydrogenase in the Diagnosis of the Acute Surgical Abdomen." His report was based on research done in collaboration with Dr. Falls B. Hershey, assistant professor of surgery at Washington University Medical School; Jerome D. Skaggs, sophomore medical student, and Dr. Andrew Spencer, resident in surgery at Homer G. Phillips Hospital.

Grants Renewed

Washington University School of Medicine has been awarded $53,438 in renewal research grants by the United States Public Health Service, it was recently announced. The grants will give continued support to research projects currently being conducted in the departments of pharmacology, internal medicine, pathology and physiology. Recipients are Dr. Helen B. Burch, associate professor of pharmacology, $15,525; Dr. Seymour Reichlin, assistant professor of medicine and of psychiatry, $15,007; Dr. Richard J. Bing, professor of medicine and chief of Washington University Medical Service at Veterans Hospital, $13,540; Dr. J. Owen Blache, instructor in pathology, $6,491; and Dr. Gordon M. Schoepfle, associate professor of physiology, $2,875.

Award

Dr. Robert M. Burton, assistant professor of pharmacology at Washington University School of Medicine, has been named recipient of a travel award to the International Biochemical Congress September 1 through 6 in Vienna. He is one of 45 scientists throughout the United States selected from more than 300 applicants by the Travel Award Committee and will receive a major portion of his travel expenses to and from Europe. The Travel Award Committee is composed of representatives from the National Science Foundation, the American Society of Biological Chemists and the Division of Biological Chemistry of the American Chemical Society. Dr. Burton has been invited to speak at a Congress symposium on "Biochemistry of the Central Nervous System." He will leave for Europe in early August and will tour various European laboratories prior to attending the Congress.

Visitor

Dr. Heinz Holter, director—physiological department, Carlsberg Laboratories, Copenhagen, spoke on "Problems of Pinocytosis With Special Reference to Amoeba" on March 31 in the Washington University Medical School Auditorium. Dr. Holter is one of the world's greatest histochemists. He and Dr. Linderstrom-Lang were the first to make quantitative histochemical studies and Dr. Holter has extended and elaborated this work over a period of 25 years.

UNIVERSITY OF MISSOURI

Coming Events

A slide seminar in "Medico-Legal Aspects of Pathology" will be presented by Drs. A. F. Strauss and G. T. Mann on April 12. This will be part of a two-day program of the South-Central Regional Meeting of the College of American Pathologists to be held at the Medical Center on April 12 and 13. Dr. Strauss is senior consultant in Forensic Pathology to the Chief Medical Examiner of Virginia. Dr. Mann is professor of legal medicine and associate professor of pathology, Medical College of Virginia. Featured speaker at a banquet to be held the night of April 12 is Dr. Frank C. Coleman, Des Moines, Iowa. Dr. Coleman is vice president and vice-chairman of the legislative committee of the College of American Pathologists and will speak on the subject "Professional Relations."

Visitors

Dr. Frederick C. Robbins, professor of pediatrics, Western Reserve University, Cleveland, and Nobel Prize Winner in Medicine, was a visitor to the campus of the University of Missouri Medical Center on March 10 and March 11. Dr. Robbins spoke to a convocation of the faculty and student body at 4:00 p.m. on March 10 on the subject of "Newer Aspects of Virus Diseases." This was followed by a coffee hour in the lounge of the Medical Center. On Tuesday morning, March 11, Dr. Robbins made informal rounds of the Medical Center.

Meetings

The regional meeting of the American College of Physicians was held at the Medical Center Auditorium on Saturday, February 15. A special attraction was the presence of Dr. Philip S. Hench, a Regent of the College of Physicians, Rochester, Minnesota, and a Nobel Prize Winner. Dr. Hench participated in the scientific program and was the chief speaker in the afternoon session. Appearing on the program from the University of Missouri was Dr. Thomas W. Burns, associate professor of medicine, who spoke on "Studies of Carbohydrate Metabolism in Panhypopituitarism." Approximately 100 members of the College in the State of Missouri attended.

The third meeting of the Medical History Group was held on Wednesday, March 12 at the Medical Center. Dr. Thomas W. Burns, associate professor of Medicine, discussed with the group "The Influence of Johns Hopkins on American Medical Education."

Trips and Talks

Dr. Roscoe L. Pullen, Dean of the School of Medicine, spoke at a joint meeting of the Boonville Service Clubs, Rotary, Lions, and Kiwanis, on Tuesday, March 11. He discussed "Recent Developments in Medical Education."

And it is, oh, such fun!
And I am sure that we shall rue
The time when we are both
too old to play
The game of "Booh"!
—*EUGENE FIELD*

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Dr. Frank B. Engley, Jr., Assistant Dean of the School of Medicine, along with Dean Henry Bent of the Graduate School, went to Southeast Missouri State College at Cape Girardeau on March 8 in regard to the development of courses for graduate work in the biological and physical sciences for high school teachers. On March 10, Dr. Engley went to Marshall, Missouri where he spoke at the noon luncheon of the Lion's Club and that afternoon to the combined Women's Clubs Monday club meeting. Dr. Engley spoke on the subject of the "Developments of the University of Missouri Medical Center."

On February 20, Dr. Joseph E. Flynn attended a meeting of the ad hoc committee of the Missouri State Medical Association to study the proposal of Act 127. The meeting was sponsored by the State Director of Health, Dr. H. A. Hardwicke, to consider a health screening project.

On March 2 to 7, Dr. Vincent Perna, instructor of pathology, visited the Department of Biochemistry of the Francis Delafield Hospital in New York City to consult with Dr. Sam Graff regarding the practicability of adopting the Beckman recording spectrophotometer for more extensive use in the clinical laboratory.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, attended an executive committee meeting of the Missouri Heart Association held on February 16 at Columbia.

On March 6, 7, and 8, Dr. Clement Brooke, Assistant professor of pediatrics, attended the meeting of the American Orthopsychiatric Association held in New York, N. Y. and participated in the group discussions.

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, spoke to the premedical students and faculty of Central College at Fayette, Missouri, on February 27, 1958. Dr. Lodwick discussed the "Development of Medical Education in the State of Missouri." On March 5, Dr. Lodwick spoke at a meeting sponsored by the U. S. Naval Reserve on the subject "Development of Medical Education in the State of Missouri."

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, was the special guest speaker for the annual University of Missouri Alumni gathering in Houston, Texas, on February 24. A number of the University of Missouri Medical Alumni were present among the group attending. While in Houston, Dr. Stephenson visited the University of Texas Medical Center and Dr. Denton Cooley. On Wednesday, February 26, Dr. Stephenson spoke on "The Use of Cortisone in the Treatment of Acute Hemorrhagic Pancreatitis" before the Puerto Rico Chapter of the American College of Surgeons in San Juan, Puerto Rico. On February 28, Dr. Stephenson spoke to the same group on "Cardiac Arrest, Facts and Fallacies."

Dr. Kenneth Keown, professor of anesthesiology, attended the American Society of Anesthesiologists' Refresher Courses held on March 7 to 9, in New York City. Dr. Keown spoke on the following subject "Anesthetic Management for Intracardiac Surgery." Dr. Keown is chairman of the committee on medical schools and postgraduate education of this organization and his committee meeting was held on March 7. On March 10, Dr. Keown spoke to the faculty of the United States Naval Hospital in Philadelphia, Pennsylvania. On March 11, Dr. Keown presented "Anesthetic Management for Intracardiac Surgery" to the faculty of the St. Francis Hospital in Hartford, Connecticut.

Paramedical Staff

Mr. John Perry, Assistant to the Medical Director, and Mr. Dave Phillippe, Administrative Assistant, attended a Cost Finding School and Workshop sponsored by the Missouri Hospital Association and held on February 27 in Jefferson City. The institute was conducted by Elton TeKolste and Robert Borczon, American Hospital Association representatives, and assisted by Mr. Leroy Steinke, Accounting Consultant of the Kansas City Area Hospital Association.

On February 20, a meeting of the Central Missouri Hospital Council was held at the Medical Center. Following the regular business meeting of the Council, Mr. Ted Lloyd, executive director of the Missouri Hospital Association, spoke on "State Organization." Also, a short talk was given by Mr. Neil Wortley of the Division of Health on "Missouri Hospital Licensing."

New Appointments

Dr. H. Graham Parker, Platte City, has been added to the list of Preceptors in General Practice. Dr. Parker received his B.S. in medicine in 1951 from the University of Missouri and his M.D. in 1953 from Washington University.

SAINT LOUIS UNIVERSITY

Lectures

The Department of Pathology is sponsoring the fourth in a series of special lectures honoring the Silver Jubilee of Firmin Desloge Hospital May 16. Dr. Arthur T. Hertig, Shattuck Professor of Pathological Anatomy, Harvard Medical School, will be a guest lecturer. His main interests lie in the fields of gynecologic pathology and embryonic development. The scientific session will begin at 10:00 a.m. in Miller Hall of the hospital with a lecture by Dr. Hertig on the subject of "Exfoliative Cytology in Uterine Cancer." A panel discussion on "Gynecological Exfoliative Cytology" will follow. Participants will be: Dr. Lauren V. Ackerman, professor of surgical pathology and pathology, Washington University School of Medicine; Dr. Harlan J. Spjut, assistant professor of surgical pathology and pathology, Washington University School of Medicine, and Dr. Paul F. Fletcher, senior instructor in gynecology and obstetrics, Saint Louis University School of Medicine. The afternoon session will begin with a lecture by Dr. Hertig on "Hydatid Mole and Chorio-Carcinoma," to be followed by a general discussion period. Dr. Drummond Bowden, assistant professor of pathology and pathologist, Cardinal Glennon Memorial Hospital for Children will speak on "Clinicopathological Hazards of Intra-Uterine Life." Dr. Hertig will also speak at the Saint Louis University School of Medicine in Lecture Room B from 9:00 a.m. to 10:00 a.m. Saturday, May 17. The session is open to members of the Missouri State Medical Association.

A Jubilee program sponsored by the Department of Ophthalmology was held March 27. Participants and their subjects included: Dr. Bernard Becker, professor of ophthalmology, Washington University, "The Role of Electogonography in the Management of Glaucoma"; Dr. V. Everett Kinsey, professor of opthalmic chemistry, Wayne University College of Chemistry, "Lens Metabolism in Normal and Diabetic Animals"; Dr. Paul A. Chandler, associate clinical professor of ophthalmology, Harvard University, "Practical Considerations in the Management of Narrow Angle Glaucoma"; Dr. Hermann M. Burian, professor of ophthalmology, College of Medicine, State University of Iowa, "Chamber Angle Studies in Developmental Glaucoma; Marfan Syndrome and High Myopia," and Dr. Elmer J. Ballantine, senior clinical instructor of ophthalmology, Department of Surgery, Western Reserve University, "Clinical Tonography."

Dr. W. W. Westerfeld, chairman of the Department of Biochemistry, State University College of Medicine, Syracuse, New York, spoke before the School of Medicine on March 12 on "Molybdenum Enzymes." Dr. Westerfeld studied under Dr. Edward A. Doisy, Sr., Nobel Prize Winner and Director of the Department of Biochemistry for his Ph.D. degree, which was awarded in 1938.

Dr. John Adriani, Director of the Department of Anesthesia, Charity Hospital, New Orleans, delivered the third annual lecture sponsored by the Phi Rho Sigma Medical Fraternity March 31. He spoke on "Some Current Fallacies and Misconceptions About Surgical Anesthesia."

Appointment

Dr. Charles J. Galbraith has been appointed senior instructor in surgery, Saint Louis University School of Medicine, and Chief of the Saint Louis University Surgical Service at Veterans Administration Hospital in St. Louis. Dr. Galbraith was awarded his M.D. degree from Saint Louis University in 1952 and his B.S. degree from Seattle University *magna cum laude* in 1948. He took his internship and completed his surgical residency at Saint Louis University Hospitals. In addition he served as chief resident in surgery at St. Louis City Hospital. He is a member of Alpha Omega Alpha, national medical honorary society, Alpha Sigma Nu, national honorary Jesuit Society and Alpha Epsilon Delta, national premedical society.

Alumni Reunions

The Saint Louis University School of Medicine will hold its annual Medical Alumni Reunion during the meeting of the American Medical Association in San Francisco Wednesday, June 25, in the Georgian Room of the St. Francis Hotel. Dr. Clement B. Grebel, senior instructor in internal medicine, alumni secretary, may be contacted for advance reservations.

The class of 1943 will hold a three-day reunion in St. Louis May 7, 8 and 9. Dr. Bart Cole, senior instructor in orthopedic surgery, is general chairman of the planning committee. Registration will be held in the Medical School Cafeteria from 10:00 a.m. to 12:00 noon Wednesday, May 7, followed by a tour of the Medical School and luncheon at Cardinal Glennon Memorial Hospital. A scientific program will be presented by the medical staff of the hospital from 2:00 to 4:00 p.m.

A scientific session in Lecture Room B, School of Medicine will begin at 10:00 a.m. May 8, to be climaxed by a banquet at the Chase Hotel that evening. A scientific program will be presented by the St. Mary's Hospital staff on May 9, to be followed by luncheon and a tour of the hospital.

BOOKS RECEIVED

SURGERY IN WORLD WAR II: OPHTHALMOLOGY AND OTOLARYNGOLOGY. Medical Department, United States Army. Editor in Chief, Colonel John Boyd Coates, Jr., M.C. Editor for Ophthalmology, M. Elliott Randolph, M.D.; Editor for Otolaryngology, Norton Canfield, M.D.; and Associate Editor, Elizabeth M. McFetridge, M.A. Office of the Surgeon General, Department of the Army, Washington, D. C. 1957. Price $5.00.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY, Volume 11. Hormones in Blood. Editors for the Ciba Foundation: G. E. W. Wolstenholme, M.A., M.B., and Elaine C. P. Millar, A.H., W.C. With 74 Illustrations. Little, Brown and Company, Boston. 1957. Price $9.00.

SYMPOSIUM ON DISEASES AND SURGERY OF THE LENS. Editor, George M. Haik, M.D., Professor of Ophthalmology and Head of the Department, Louisiana State University School of Medicine; Ophthalmic Surgeon, American College of Surgeons; Associate Editor, Elizabeth M. McFetridge, M.A.; and Art Editor, Don Alvarado, Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. The C. V. Mosby Company, St. Louis. 1957. Price $10.50.

THE SPECIALTIES IN GENERAL PRACTICE, edited by Russell L. Cecil, M.D., Professor of Clinical Medicine, Emeritus, Cornell University Medical College, New York City; and Howard F. Conn, M.D., Fellow, Department of Physiology, Baylor University College of Medicine and the Blue Bird Clinic, Methodist Hospital, Houston, Texas. Second Edition. W. B. Saunders Company, Philadelphia. 1957. Price $16.00.

THE PHYSICIAN-WRITER'S BOOK, TRICKS OF THE TRADE OF MEDICAL WRITING, by Richard M. Hewitt, M.D., Senior Consultant, Section of Publications, the Mayo Clinic; Associate Professor of Medical Literature, the Mayo Foundation, Graduate School, University of Minnesota. W. B. Saunders Company, Philadelphia. 1957. Price $9.00.

MOSBY'S REVIEW OF PRACTICAL NURSING. Contributing Authors: Dorothy Kelley Rapier, R.N., B.S., Assistant Director, School of Nursing, St. Louis City Hospital, St. Louis; Instructor, St. Louis Board of Education Practical Nurse Training Program; Marianna Jones Koch, R.N., B.S., Clinical Instructor, Surgical Specialties, School of Nursing, St. Louis City Hospital, St. Louis; Deborah MacLurg Jensen, R.N., B.S., M.A., Director, School of Nursing, St. Louis City Hospital, St. Louis; Viola M. Laurent, R.N., Assistant Director of Nursing and Director of Psychiatric Aide and Attendant Education Programs, St. Louis State Hospital, St. Louis; and Lois Pearson Moran, A.B., Instructor in Nutrition for Practical Nurses, Board of Education, St. Louis. Second Edi-

(Continued on page 533)

Hospital practice of infant feeding

Standard formulas for WELL INFANTS

Since age, appetite and digestive capacity vary, hospital practice favors an individualized formula for each infant.

The total daily feeding usually amounts to 2 ounces of milk *per pound of body weight,* plus 1 ounce of Karo Syrup with enough water to satisfy fluid requirements.

The newborn usually takes from 2 to 3 ounces of formula per feeding; the very young infant, 4 to 5 ounces—the daily quota yielding over 50 calories for each pound the infant weighs. The quantity per feeding should not exceed 8 ounces.

Newborns are fed at 3 to 4 hour intervals throughout the 24-hour period—the 2 or 3 A.M. feeding is discontinued after the neonatal period. In the third or fourth month the 10 or 12 P.M. feeding is discontinued, once the infant fails to awaken for the bottle. Standard but individualized formulas which constitute the hospital infant feeding regimen are shown here.

WHOLE MILK FORMULAS

Age Months	Cow's Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	768

ADVANTAGES OF KARO® IN INFANT FEEDING

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Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

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Free to Physicians—Book of Infant Feeding Formulas with convenient schedule pads. Write:

Medical Division
CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N.Y.

tion. The C. V. Mosby Company, St. Louis. 1957. Price $4.25.

Headache: Diagnosis and Treatment, by Robert E. Ryan, M.D., Department of Otolaryngology, St. Louis University School of Medicine; Associate Otolaryngologist, St. John's Hospital; Assistant Otolaryngologist, St. Louis University Group of Hospitals, St. Louis, Missouri. Second Edition. The C. V. Mosby Company, St. Louis. 1957. Price $6.75.

Introduction to Anesthesia, The Principles of Safe Practice, by Robert D. Dripps, M.D., Professor and Chairman, Department of Anesthesiology, School of Medicine, University of Pennsylvania; Anesthetist, Hospital of the University of Pennsylvania, Philadelphia; and James E. Eckenhoff, M.D., Professor of Anesthesiology, School of Medicine, University of Pennsylvania; Anesthetist, Hospital of the University of Pennsylvania, Philadelphia; and Leroy D. Vandam, M.D., Clinical Professor of Anesthesia, Harvard Medical School; Director of Anesthesia, Peter Bent Brigham Hospital, Boston. Line drawings by Leroy D. Vandam, M.D. W. B. Saunders Company, Philadelphia. 1957. Price $4.75.

The Chronically Ill, by Joseph Fox, Ph.D., Executive Director of the Home for Chronic Sick, Irvington, New Jersey. Philosophical Library, Inc., New York. 1957. Price $3.95.

Adventures in Medical Education, A Personal Narrative of the Great Advance of American Medicine, by G. Canby Robinson, M.D., Emeritus Lecturer, School of Medicine, Johns Hopkins University. The Commonwealth Fund by Harvard University Press, Cambridge. 1957. Price $5.00.

The Story of Peptic Ulcer, by Richard D. Tonkin, M.D., Westminster Hospital, London; and characterized by Raymond K. Hellier, W. B. Saunders Company, Philadelphia. 1957. Price $2.25.

Fluid and Electrolytes in Practice, by Harry Statland, M.D., Associate in Medicine, University of Kansas School of Medicine; Chief, Division of Internal Medicine, Menorah Medical Center, Kansas City, Missouri, Consultant in Medicine, Veterans Administration Hospital, Kansas City, Missouri. Second Edition. J. B. Lippincott Company, Philadelphia-Montreal, 1957. Price $6.00.

Practitioners' Conference Held at the New York Hospital-Cornell Medical Center, Volume 6, edited by Claude E. Forkner, M.D., Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, The New York Hospital; Consultant in Medicine (Hematology), Roosevelt Hospital; Consultant in Internal Medicine, Bronx Veterans Administration Hospital. Appleton-Century-Crofts, Inc. New York, 1957. Price $6.75.

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Beaker A—Magnocyl
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Here (A) is Magnocyl, the only wetting agent fecal softener on the market that retains its effectiveness under all conditions.

The beakers contain identical gastric juices. The cloudy precipitation in beaker B is produced when an ordinary wetting agent ionizes and unites with these juices. Ionization dissipates the effectiveness of the agent, and little or no benefit results.

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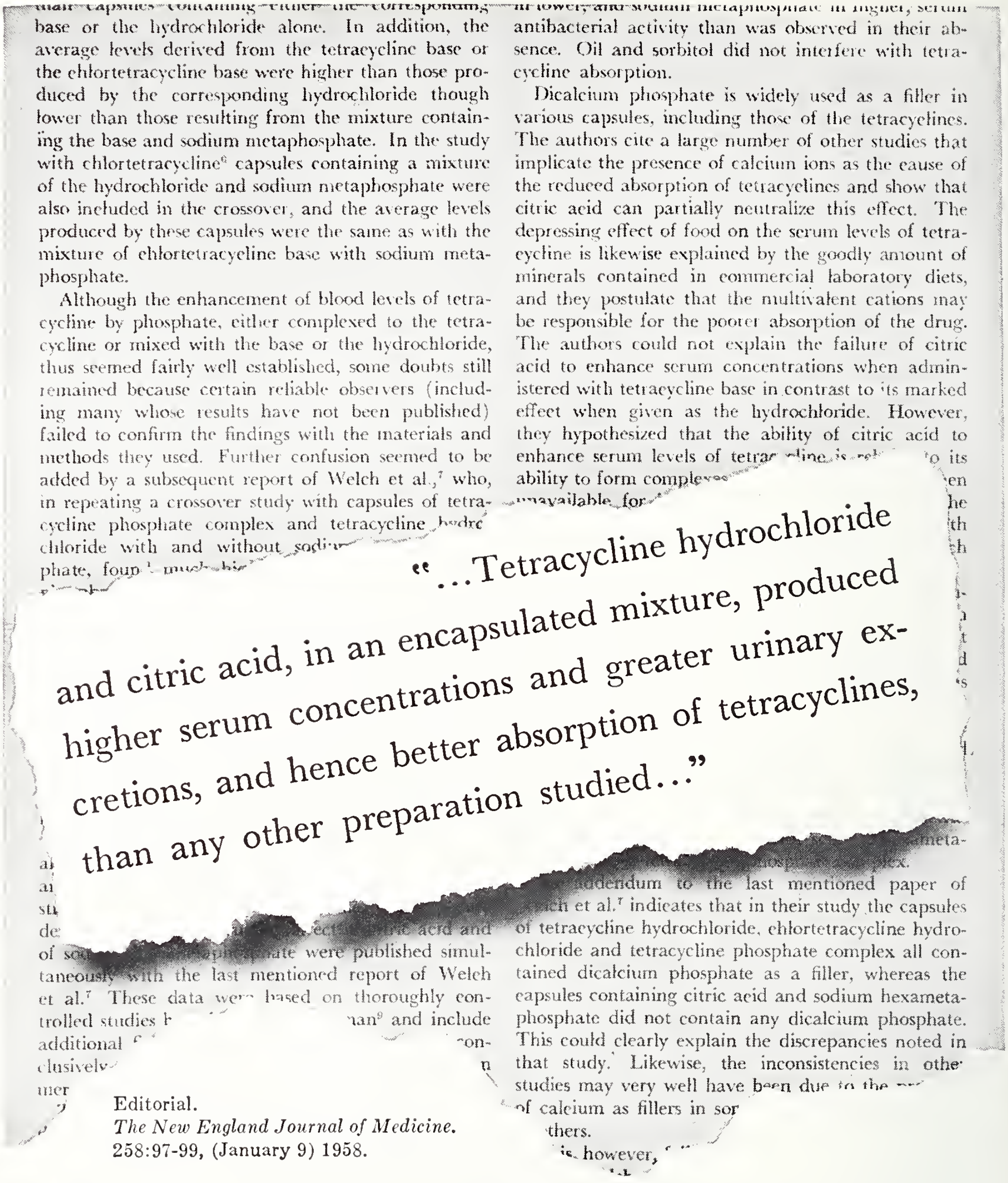

than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodi... phate, foun...

...ect... citric acid and of so... ...aphosphate were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies b... ...nan[9] and include additional ... ...con-clusively ... mer...

in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetracycline is rel... to its ability to form comple... ...en unavailable for...

...meta-phosphate complex.

An addendum to the last mentioned paper of Welch et al.[7] indicates that in their study the capsules of tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the ... of calcium as fillers in so... others. ...is, however, ...

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958.

ACHROMYCIN* V

TETRACYCLINE HCI BUFFERED WITH CITRIC ACID

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Lederle

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Curiosa et Trivia

WILLIAM B. McCUNNIFF, M.D.

Prolonged (over four weeks) illness and absence from jobs costs Americans 800 million dollars per year in lost wages alone. This does not include medical expenses, nor management losses of about two billion dollars.

And we thought the name was "Dixie"—ENT man Ralph Steiner, incidentally American Consul in Munich in the 1890's is known as the Father of the Sanitary Drinking Cup.

Not until long after her death was it discovered that Lydia Pinkham's Compound contains estrogenic substance.

More than seven thousand foreign interns and residents from eighty-eight countries trained in American hospitals last year. Nine states including Missouri absorbed about half of these physicians.

Capsule Clinics

I. A. WIEN, M.D.

- In 37 patients suffering from polycythemia vera satisfactory remissions occurred in 14 under phosphorus-32 therapy; 4 proved resistant. The duration of the remission could not be predicted. Verel, D.: Quart. J. Med. **27** (January) 1958.

- The usual course of patients with carcinoma of the head of the pancreas is unfavorable; the duration of life following palliative procedures for relief of obstructive jaundice is usually six to nine months. Cattell, R. B., and Young, W. C.: Lahey Clin. Bull. **10** (July-Sept.) 1957.

- Phlebotomies and radioactive phosphorus are used in the treatment of polycythema vera, the latter being used mainly whenever the patient is a severe form or over the age of 40 years. Reinhard, E. H., and Haheman, B.: J. Chron. Dis. **6** (October) 1957.

- Steroid therapy of a long-continued type offers a means of controlling the signs and symptoms of nephrosis; time alone will tell about the mortality rate. Piel, C. F., and Williams, G. F.: J.A.M. Women's A. **12** (September) 1957.

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WASHINGTON

The physicians lost an able spokesman in Washington when Dr. Thomas H. Alphin, director of the AMA office there, resigned last month. Dr. Alphin who became associate medical director of the Equitable Life Assurance Society served as assistant dean, faculty of medicine, University of Missouri in 1955.

Dr. William J. Kennard, deputy director of the AMA's Washington office, has been named acting director. He joined the AMA in 1955 after his retirement as brigadier general in the Air Force Medical Corps.

The medical and health field's Joint Council to Improve the Health Care of the Aged has run into a roadblock from the Eisenhower administration on one of its proposals.

The Joint Council, composed of the AMA, American Dental Association, American Hospital Association and American Nursing Home Association, had indorsed legislation calling for a White House Conference on Aging next year. This is just one of the steps it is taking in an effort to head off the Forand bill this year.

Opposition to the measure came from two cabinet spokesmen in testimony before a House Education and Labor subcommittee. One of them, Assistant Labor Secretary Newell Brown said existing federal agencies "have hold of" the problems "and are in no sense complacent about them."

Complacent or not, the Joint Council has plenty of eggs to hatch and it isn't placing them all in one basket.

This is medicine's fight. And the Joint Council probably doesn't feel it is up to existing governmental agencies to decide whether further action is called for.

Doctors increased life expectancy, and they should be dealt a hand in deciding how it should be spent. In fact, the medical profession should be the best qualified to evaluate the emotional and physical problems involved.

Curiously enough, the Joint Council and the AFL-CIO find themselves in the same camp on the White House Conference measure introduced by Rep. John Fogarty, Rhode Island Democrat. There the similarity ends, of course, because the Forand bill bears the stamp of labor.

Other efforts being put forth by the Joint Council, include expansion and improvement of health care facilities by encouraging legislative action to speed up readying of hospital and nursing home facilities for the oldsters.

The Joint Council also is working with the voluntary health insurance industry, including the Blue plans, to broaden and relax restrictions covering the aged. The Blue Shield-Blue Cross plans of Missouri already have removed all age restrictions on their coverage.

Another aim of the Council is to encourage state and local authorities to assume more of their proper responsibility for indigent patients, especially as it pertains to medical care. This, of course, covers the Vendor program now in operation in about 40 states. Similar legislation is expected to be introduced in Missouri at the next session starting in January.

Other major programs of the Joint Council cover the normal problems of trying to educate the public and allied organizations to the true threat of the Forand bill and all of the various bills modeled after it.

The Forand bill now seems to be leading to a veritable army of such proposals. Two of the latest sponsors to seek a seat on its train of supporters are Sen. Hubert Humphrey, Minnesota Democrat, and Rep. Alfred E. Santangelo, Democrat of New York.

While time seems to be running out for the Forand bill this Congressional session, it will receive a big shot in the arm the 16th and 17th of this month by labor. The American Labor Health Association (ALHA) will hold a national meeting in Washington to take a closer look at the maintenance of the worker's health.

This is well timed to hit just about the time Congress starts thinking about clearing off its desk and going home for the primary heats coming up in August. With mid-July as the normal closing target, there will be plenty of time for the labor speakers to discuss subsidies for labor clinics and other liberal innovations, not to mention the Forand measure.

It also is well timed to throw the AMA's House of Delegates meeting in San Francisco on the defensive, if labor wishes. One known brickbat is the United Mine Worker Association's efforts to get its physicians admitted to local medical societies.

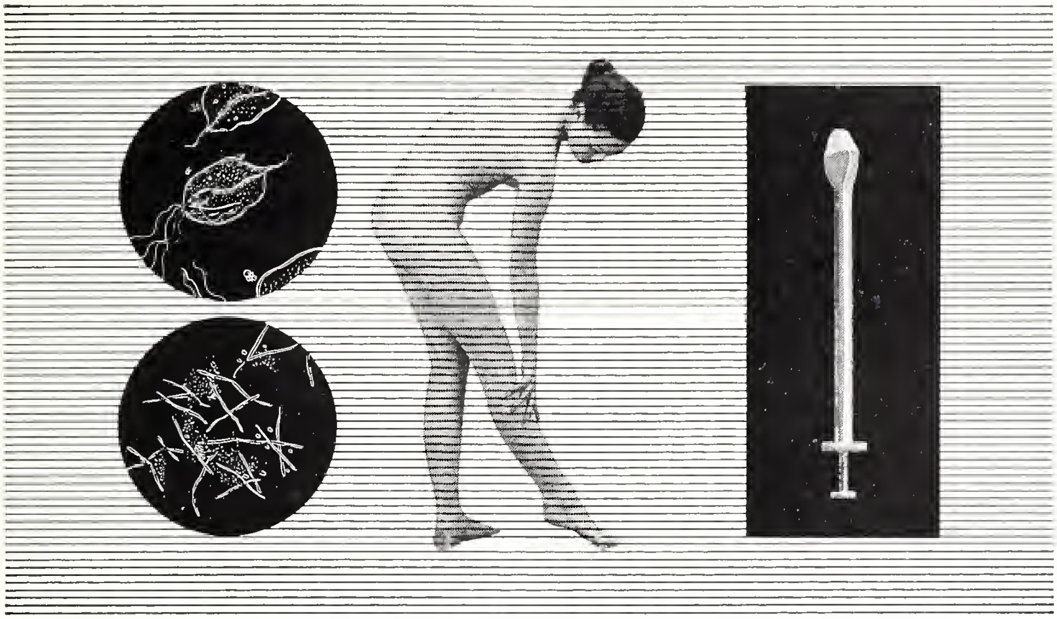
Also many of the health progressive leaders probably will be on hand because the labor meeting falls on the 20th anniversary of the National Health Conference. The Conference gave strong backing to the movement for compulsory health insurance.

Marian B. Folsom will be replaced as Secretary of the Health, Education and Welfare Department August 1 by Arthur S. Flemming. Mr. Folsom who resigned for personal reasons has been a voice of moderation in the key agency that is so vital to the nation's physicians.

The 64-year-old executive was in Florida re-

(Continued on page 638)

FOR FLAGELLATE AND FUNGAL VAGINITIS



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Whenever a woman complains of vaginal discharge with pruritus, a trichomonal infection[1] must be suspected. Moniliasis, the second most frequent cause[2] of leukorrhea, often occurs[3] in conjunction with diabetes mellitus, pregnancy and estrogen or broad spectrum antibiotic therapy. Commonly used douches wash away normal acid secretions and protective Döderlein bacilli, thus tending to aggravate the problem.

Floraquin, containing Diodoquin® (diiodohydroxyquin, U.S.P.), eliminates infection and provides boric acid and sugar to restore the acidic pH which favors replacement of pathogens by normal Döderlein bacilli. The danger of recurrence is thus minimized.

Pitt reports[2] consistently good results after daily vaginal insufflation of Floraquin powder for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles.

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This smooth, unbreakable, plastic plunger device is designed for simplified insertion of Floraquin tablets by the patient; it places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. A Floraquin applicator is supplied with each box of 50 tablets.

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---

1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157:*126 (Jan. 8) 1955.
2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25:*182 (Feb.) 1956.
3. Lang, W. R.: Recent Advances in Vaginitis, Philadelphia Med. *51:*1494 (June 15) 1956.

SEARLE

Across Missouri

Money woes in two of Missouri's most important tax-supported hospitals have raised a real threat to their future.

One is the General Hospital for indigents in Kansas City. It is feeling the hot breath of an economy wave, as Mayor H. Roe Bartle seeks to solve an ever-mounting deficit.

The second is the St. Louis State Hospital for mental patients that recently suffered a $200,000-cut in its salary allotment from the state. Gov. James T. Blair made the slash in his efforts to help balance the state's budget.

Unfortunately, both officials are charged with giving more thought to their balance sheets than to what the cuts could mean to the future of their respective institutions.

First let's examine the Kansas City problem because it involves a great deal more money and a faint outside possibility that the city might close its hospitals for the poor. Mayor Bartle has suggested this, saying it might be cheaper to pay their way in the local private hospitals.

Mayor Bartle touched off a furor in Kansas City by announcing at a service club luncheon that the city could save 2 or 3 million dollars a year by such a move. At the same time, he said he had referred the matter to the Missouri Health Division for study. However, he apparently failed to counsel with the medical profession.

Not only that, but the mayor also forgot to take into account the factor of free service given by Kansas City physicians at the city's hospitals for the poor. This is not to mention the care provided by residents and interns for "relatively token salaries," to quote one of the residents there.

Just how the mayor and the city would pick up the check for this now-free medical care if the mayor's idea is carried out, has not been spelled out. At best it would tend to be much more complicated than the present system.

Editorially, the *Kansas City Star,* commented:

"The mayor's interesting proposal for a study that might result in the shutting down of the general hospitals comes at an odd time. Only two weeks ago the city council approved a $51,875 contract for the drawing of general hospital consolidation plans. You get the impression that the mayor produced his idea on impulse.

"Some cities do send indigent patients to private hospitals and pay *per diem* costs as the mayor has suggested Kansas City might do. However, it is doubtful whether any money could be saved. We have heard of no city with a public hospital that shifted to the use of private facilities. Such a course would be remotely feasible only if a metropolitan area were glutted with empty hospital beds. If that is the case in Kansas City it would be more logical to stop all expansions and halt hospital fund campaigns instead of closing down hospitals that already exist."

In addition to this hot potato, the city and the state are deciding just how the Kansas City Psychiatric Receiving Center should be financed. The last General Assembly decided it should be operated by the state at state expense. Local supporters of the center want to make sure it retains its present character as a treatment center.

Probable loss of accreditation by the American Psychiatric Association (APA) appears likely for St. Louis Mental Hospital as a result of the $200,000-salary slash, according to Dr. Louis H. Kohler, superintendent.

In addition, Dr. Kohler said, "it will be impossible for the hospital to reach its teaching and training goals and to continue the community service clinic" without the $200,000.

It seems the hospital was relying on the $200,000 to hire additional psychiatric personnel as they can be found during the coming fiscal year. It was that readiness to hire more nurses and psychiatrists that helped the hospital secure its conditional approval from the APA last December 27.

Governor Blair explained he had made the cut because the hospital turned back $300,000 in unused salary funds for the current fiscal year ending the 30th of this month. He noted that the hospital still would get $82,716 more for the coming year than it used this year.

"When Governor Blair mentions that $300,000 of our current appropriation was unspent, he is correct," Dr. Kohler said. "But, if we could have found trained personnel it would have been spent and Missouri would have moved forward in the field of mental health.

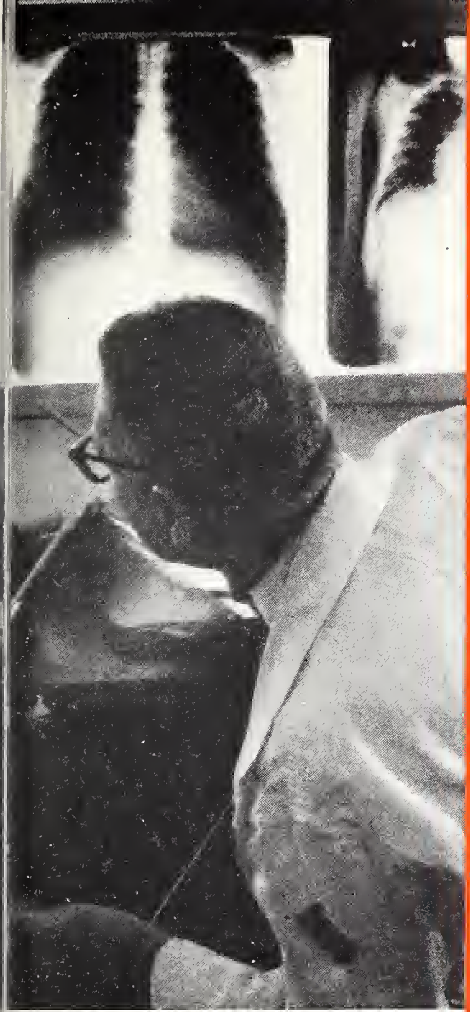
"This conditional accreditation was just for one year and it was based on the premise that we could eventually meet the minimum standards set by the association and the joint commission of accreditation of hospitals."

Dr. Kohler commented that the unexpended salary funds had not cost the citizens of Missouri anything. His hospital is the only mental institution in Missouri to receive any APA accreditation.

The Blue Shield plans of St. Louis recently announced broader coverages to attract more members.

Missouri Medical Service (St. Louis Blue Shield) made its non-group membership open to all qualified applicants regardless of age.

(Continued on page 638)



'E SKELETAL MUSCLE SPASM[1,2,5,6]

	RESPONSE		
ed''	moderate	slight	none
	6	1	—
nced''			
	13	—	1
	4	—	—
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	1	—	—
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	—	2	1
	28	4	2
%)	(20.3%)		

Comments on Robaxin by investigators

Annual Meeting · San Francisco · June 23-27, 1958
THE JOURNAL
of the
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

Annual Meeting · San Francisco · June 23-27, 1958
THE JOURNAL
of the
American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

Annual Meeting · San Francisco · June 23-27, 1958
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American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern
Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

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References: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B.: Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

Robins

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The election of Dr. M. P. Overholser to the 1918-1919 presidency of our Association is a recognition of his faithful and disinterested service in the organization and a tribute to his professional attainments. He graduated from the Kansas City Medical College in 1884. After practicing in in Kansas for several years he moved to Harrisonville, in 1889, where he has lived continuously and enjoys the confidence and esteem of all who know him in Cass County and adjoining counties. For some years he held the chair of Hematology in the University Medical College in Kansas City. In 1910 he was appointed by Gov. Hadley a member of the State Board of Health and filled that position creditably until 1912 when Gov. Hadley appointed him superintendent of the State Hospital at Nevada. After finishing his term at that institution he retired to private practice at his home. He was one of the first councilors after the reorganization in 1903, his district comprising the counties of Jackson, Henry, Johnson, Cass, Bates, St. Clair and Dade.

Dr. C. E. Griffith of Gallatin has been appointed local surgeon for the Rock Island Railroad, to succeed the late Dr. W. L. Brosius.

Dr. E. P. North, St. Louis, has been appointed a member of the Missouri State Board of Health to succeed Capt. M. R. Hughes, who resigned and is now in active service in the Medical Reserve Corps of the Army.

Washington University has decided to open the medical and dental departments to women as well as men. By this action all the departments of the University become coeducational. The names of the medical school and dental school were ordered changed and will hereafter be known as the School of Medicine and the School of Dentistry.

It is reported that Capt. J. F. Hardesty, St. Louis, a member of the St. Louis Medical Society, and Lieut. L. M. Edens, Cabool, a member of the Texas County Medical Society, have been captured by the Germans, and are now in the prison camp at Karlsruhe, Germany. Lieut. H. A. Goodrich of Webster Groves is also reported a captive at Camp Karlsruhe.

The regular meeting of the Buchanan County Medical Society was held in the Assembly Room of the Library Building, Wednesday evening, May 1, 1918, with forty-one members present. The president, Dr. Daniel Morton, was in the chair.

The Schuyler County Medical Society met in regular session in the office of Drs. Potter and Potter at Lancaster, April 18, 1918, with the following members present: Drs. W. H. Zieber, Queen City, J. H. Keller, B. B. Potter, William A. Potter of Lancaster, A. J. Drake, H. E. Gerwig and J. B. Bridges of Downing.

TWENTY-FIVE YEARS AGO

The Seventy-Sixth Annual Session of the Missouri State Medical Association convened in Kansas City, May 1, 2, 3, and 4, with the largest attendance in the history of the Association. Fifty-seven papers were presented, many of them of value to all practitioners; others of them highly specialized and instructive to the specialist in those fields. On Thursday morning the program on tuberculosis, planned and arranged by Dr. Sam H. Snider, Kansas City, was given, and a vote of thanks to Dr. Snider at the close of the session showed the appreciation of the physicians in attendance. Of such value did physicians in eye, ear, nose and throat work consider the Thursday afternoon session that is was voted a Section in Eye, Ear, Nose and Throat be a permanent part of the Missouri State Medical Association. Officers of the Section were elected, Dr. Albert N. Lemoine, Kansas City, chairman; Dr. Robert L. Forgave, St. Joseph, vice-chairman, and Dr. William E. Keith, Kansas City, secretary.

In appointing members to the State Board of Health to succeed those whose terms have expired, Governor Park has drafted practically every one. The new members are Dr. Emmett P. North, St. Louis; Dr. Peter T. Bohan, Kansas City; Dr. William T. Elam, St. Joseph, and Dr. Elmer T. McGaugh, Richmond. The holdover members are Dr. H. S. Gove, Linn; Dr. E. Sanborn Smith, Kirksville, and Dr. W. A. Clark, Jefferson City. The board held a meeting in Kansas City on May 1 and elected the following officers: President, Dr. Emmett P. North; vice president, Dr. Peter T. Bohan, and secretary, Dr. Elmer T. McGaugh.

Dr. John R. Caulk, St. Louis, was elected president of the American Association of Genito-Urinary Surgeons at the annual meeting held in Washington, D. C., May 10. Dr. Caulk previously had served as vice president of the organization.

Dr. C. S. Austin, Carrollton, recently presented 1250 copies of the *Journal of the American Medical Association* in bound form to the medical library of Washington University, St. Louis. The

(Continued on page 637)

Unusual Antibacterial and Anti-infective Properties. More rapid absorption . . . higher and better sustained plasma concentrations . . . more soluble in acid urine than other sulfonamides . . . freedom from crystalluria and absence of significant accumulation of drug, even in patients with azotemia.[1]

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References: 1. Grieble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49, 1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

*Reg. U. S. Pat. Off.

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MAGP Wins Top Membership Honors

The Middle West took honors in having the best membership records during 1957. Missouri, Michigan and Iowa, in that order, received plaque awards for first, second and third places during the Monday morning session of the Congress of Delegates of the AAGP Tenth Anniversary Scientific Assembly at Dallas.

Dr. D. Wilson McKinlay, chairman of the Commission on Membership and Credentials, explained to the congress that the awards are given annually to three of the 52 constituent chapters on the basis of a combination of: (1) greatest number of new members; (2) greatest percentage of increase; (3) greatest percentage of potential new members.

1. All chapters are ranked from 1 to 52, according to their standing.
2. Points are assigned inversely—first choice in each category receives 52 points.
3. Chapters with the highest total of points for all three categories are ranked first, second and third, respectively.

The plaque presentations were made by Dr. Norman Booher, vice chairman of the Membership Commission. The plaque for first-place Missouri was received by Delegate Kenneth Glover; Michigan's secretary and treasurer, Dr. E. Clarkson Long, accepted the second-place plaque for Michigan, and Dr. Donald Kast, president of the Iowa chapter, received the Iowa plaque denoting third place.

Heartiest congratulations go to Preston C. Hall and his Membership Committee for their outstanding work, and for bringing this signal honor to the MAGP.

Off to Springfield for June 15.

A real treat will be served to physicians and their wives at the Kentwood Arms Hotel, Springfield, on Sunday, June 15.

A full day Scientific Symposia with outstanding speakers from all over the U. S. and from Canada is offered, free for the taking to Missouri physicians. This cardinal occasion is jointly sponsored by the Southwest Missouri Chapter of the MAGP, the Greene County Medical Society and Lederle Laboratories. The scientific program begins at 10:00 a.m. and concludes at 5:30 p.m. A luncheon at noon and a cocktail party from 5:30 p.m. to 6:30 p.m. are free to doctors and their wives, compliments of Lederle Laboratories.

A special program for the ladies throughout the day is being arranged by the Woman's Auxiliary of the Greene County Medical Society.

The scientific program includes the following discussions:

"Pitfalls in Diagnosis," John J. Will, M.D., Department of Medicine, University of Cincinnati, Cincinnati, Ohio.

"Management of the Allergic Patient," Bram Rose, M.D., Department of Medicine, McGill University, Montreal, Canada.

"What Medical Science Is Doing About Aging and the Aged," J. B. Donaldson, M.D., Department of Medicine, Hannemann Medical College, Philadephia.

"Basic Principles in the Management of the Injured Hand," George S. Phalen, M.D., Cleveland, Ohio.

"Gynecological Endocrinology," Edwin C. Hamblen, M.D., Department of Obstetrics and Gynecology, Duke University, Durham North Carolina.

"A Tenth Anniversary Look at Broad Spectrum Antibiotics," Vernon Knight, M.D., Vanderbilt University Hospital, Nashville, Tenn.

The Luncheon speaker will be John G. Young, M.D., Department of Pediatrics, Southwestern Medical School of the University of Texas, Dallas, Texas.

This program is acceptable for 6 hours of category I PG Credit for Academy members.

Southwest Missouri doctors expect this to be the largest medical meeting ever held in Southwest Missouri. Doctors you are invited! Have you ever been to Southwest Missouri in June?

NEW SURGICAL SOCIETY FORMED

The Missouri State Surgical Society held its organizational meeting in St. Louis, April 14, with a charter membership of 100. Officers of the new society are Claude J. Hunt, M.D., Kansas City, president; J. William Thompson, M.D., St. Louis, president-elect; Durward G. Hall, M.D., Springfield, vice president; and John A. Growdon, M.D., Kansas City, secretary-treasurer.

Speaking before the inaugural meeting was Gunnar Gundersen, M.D., La Crosse, Wisconsin, president-elect of the American Medical Association, who urged the society's members to regard themselves as physicians primarily and as specialists secondarily.

The scientific speaker for the first meeting was Rudolf J. Noer, M.D., Louisville, Kentucky, who discussed the treatment of diverticula in the colon which diverts its contents and causes inflammation that may lead to cancer.

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.:
Nitroglycerin and Other Nitrites in the Treatment of
Angina Pectoris. Circulation (Jan.) 1958.

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H. M. HARDWICKE, M.D., *Acting Director*

Pilot Multiphasic Survey in Jefferson County

A multiphasic screening program, the first to be conducted as a pilot project in Missouri, is being planned and will be launched in Jefferson County July 1, 1958.

The program to screen all interested persons in Jefferson County will be cosponsored by the Jefferson County Medical Society and the county health department.

Only those over 39 and who are not ill will be screened. The program has been sanctioned, in principle, by the Council of the MSMA. It also is being supported by allied Jefferson County health professions, including the osteopaths and dentists.

Mass screening for a single disease, such as tuberculosis x-ray survey, has long proved to be an effective aid in the early detection of disease. It, of course, does not replace the diagnostic service of the physician but it does gives the individual warning if physical disturbances are present which should have professional medical attention.

The positive tests results of the multiphasic program will be given just to the private physicians in Jefferson County. Any individual with a positive test result will be advised by the screening personnel to contact his physician for a proper interpretation of the test results. Those individuals testing out negative will be so informed by the screening personnel. The negative tests results, however, also will be made available to the physicians.

Of basic importance to the usefulness of increased longevity is the health of the individual. Chronic diseases may not be preventable with our present knowledge; however, complications of chronic diseases may be held in tow—this is termed secondary prevention. With minimal facilities to detect disease early in our older citizens who are medically indigent, a practicable method to find detectable diseases by relatively simple techniques should be applied. Multiple screening with a battery of laboratory procedures and relatively simple diagnostic procedures has proven helpful in finding chronic diseases before they produce symptoms.

Screening for chronic diseases is just that. It is not definite diagnosis, but an indication of those who may have a specific disease. It is then essential to ask the screened patient with suspicion of disease to go to his physician, for a definite diagnosis. The problem of finding disease through a relatively simple detecting procedure needs follow-up to be certain the necessary steps are made by the suspect to confirm the diagnosis.

The clinic, under the direction of a physician, will train nurses and volunteers to assist with guiding the screenees through the clinic, help with registration, history taking, and other assigned duties. Voluntary health organizations will be asked to assist with the program through their state and county organizations. It will be very important that the individual is treated courteously for humane and public relations reasons.

The clinic will be held at the Jefferson County Health Department, Hillsboro, and possibly in selected other locations in the country.

The tests, requiring from 45 to 60 minutes can be given to about 75 to 100 adults a day. Supporting agencies will combine their efforts to maintain the clinic for a sufficient length of time to permit every age-eligible resident in Jefferson County an opportunity to utilize its service.

The clinic will offer the following tests: chest x-ray, electrocardiogram, blood pressure determination, serology for syphilis, height-weight relationship, blood glucose level, intraocular tension, dental evaluation, hemoglobin determination, vision, history.

Test results will be correlated with the health history of each individual screened. Health histories will be self-prepared by screenees on simple questionnaire forms.

The survey is designed primarily to refer more persons to physicians for diagnosis and treatment at an earlier stage of their disease than now go of their own volition. After this multiphasic screening program, it is hoped they will go to their own doctor. Not after a chronic illness has rendered them permanently disabled—both economically and physically—but at a time when prompt treatment can assist them to maintain their physical and economic integrity.

Positive reaction to screening procedures naturally is merely a suggestion that disease may be present. It is not a diagnostic clinic. Neither will the screening be construed to mean a complete physical examination. Particular caution will be exercised so that a "false sense of security" may be avoided.

Much research went into the planning of the program. Data on multiphasic surveys and clinics of chronic illness, disease, and disability in fourteen states was compiled and presented to the Jeffer-

(Continued on page 636)

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1. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. 6:580 (April) 1955.
2. Codling, J. W., and Lowden, R. J.: Northwest Med. 57:331 (March) 1958.

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Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

We have just returned from a wonderful convention in St. Louis. On Tuesday, April 15, Ruth Fries tossed the ball of leadership into my hands. Not for one minute would I direct your attention to the ball carrier this year but I would like for you to look at the team. As I stood that Tuesday at the lovely installation service led by Mrs. Crider and looked down the line of the newly elected and appointed board members I felt great pride and the assurance of a successful year. For there was assembled before us as fine, intelligent, active, thinking a group of women as I have ever seen.

I could spend many happy hours thinking of the fun we shared, the beauty of the decorations, the fine work we all reported, but we must not look at the past but we must turn and face the future for we have much to do each year if we maintain our standards and carry out our program.

How I wish it could be true that on this team and in our rooting section we could claim that we had 100 per cent of our possible members. But this is not so. Across this state there are about 3,600 doctors and on our Auxiliary books we have only about 1,700 members, so there are many others who should line up with us in carrying out the purposes of our fine Auxiliary.

I find no new way to tell you what it means to be an Auxiliary member. Like the colored preacher said when asked how he built his sermon, he answered, "First ah tells 'em what I'se guine to tell em—then ah tells 'em—then ah tells 'em what ah told 'em." Sometimes I feel that that is what we must do concerning membership. However our constitution says that we are to extend the aims of the State Medical Association in protection of public health and advancement of health education—that we are to help when needed at medical meetings—that we are to stimulate the spirit of cooperation and fellowship through friendship.

These officers listed represent you but YOU are the Auxiliary. You form the whole team to promote the above purpose this year, and this year's achievements depend upon your accomplishments at home.

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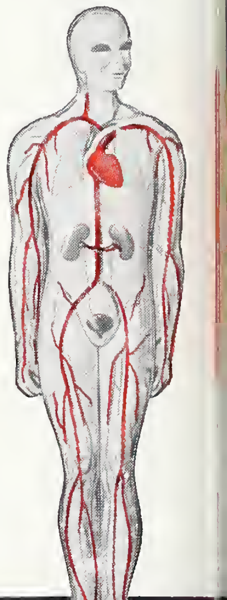
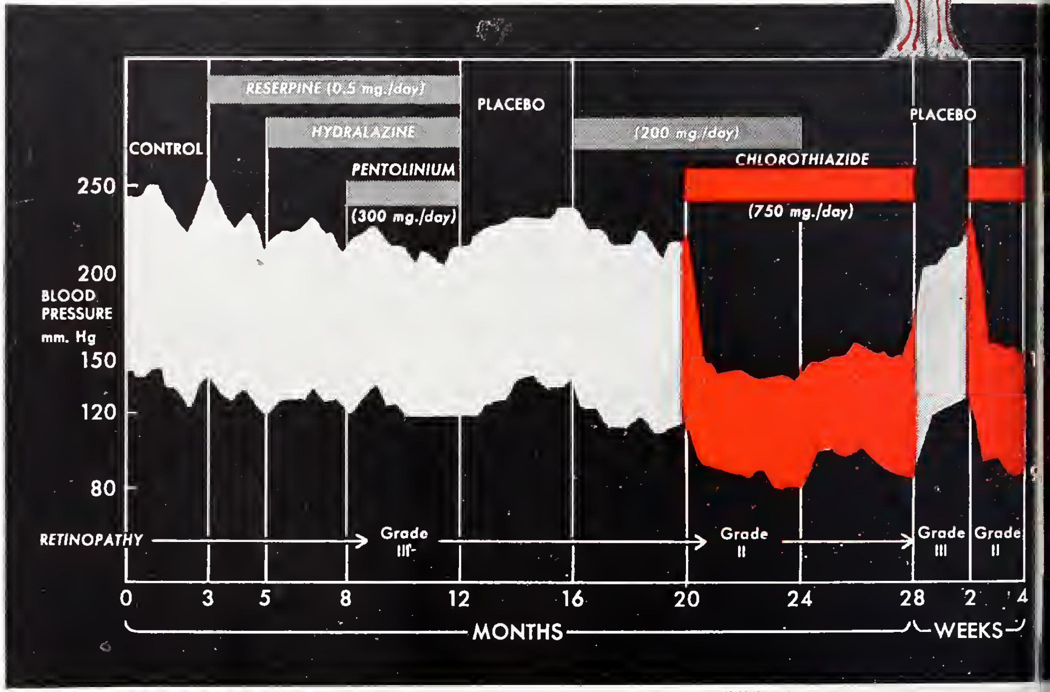
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."

Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."





In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September,

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1 **INITIATE THERAPY WITH 'DIURIL'.** 'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 **ADJUST DOSAGE OF OTHER AGENTS.** The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be immediately reduced by as much as 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 **ADJUST DOSAGE OF ALL MEDICATION.** The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

SUPPLIED: 250 mg. and 500 mg. scored tablets 'DIURIL' (chlorothiazide); bottles of 100 and 1,000.

'DIURIL' is a trade-mark of Merck & Co., Inc.

mooth, more trouble-free management of hypertension with 'DIURIL'

DRUG RESEARCH SUCCESS FULL OF PITFALLS

Research is so extensive in the pharmaceutical field that important new discoveries scarcely receive their true acclaim, Dr. F. J. L. Blasingame, general manager of the AMA, told the 51st annual meeting of the American Pharmaceutical Manufacturers' Association (APMA) in Boca Raton, Fla.

"The center of medical culture the world around is now the United States of America, "Dr. Blasingame said. "In this leadership your industry and my profession can take pride."

Average One A Day

He noted that in the last decade the drug industry has introduced 3,600 products, or one new pharmaceutical a day.

"Perhaps the most important factor that has brought about such spectacular developments is the economic climate of freedom and competition," the AMA head added.

The success of the privately-supported research has not been without its problems, other speakers indicated.

These range from finding enough trademarks to go around to the subject of implied warranties in damage suits.

Francis C. Brown, retiring president of the APMA, said the industry spent more than 130 million dollars on research last year. He added that from this and earlier private research had come all principal pharmaceutical advances in recent years.

As examples of the achievements of private medical and scientific research he cited the important vitamins, sex hormones, the sulfonamides, the anticholinergics, broad spectrum antibiotics, corticosteroids, tranquilizers, and many other drugs of major value.

Up to Private Enterprise

Brown, president of Schering Corporation, Bloomfield, N. J., commented he believed the proper role for the government was in the realm of support for research in basic sciences both in government laboratories and in private institutions. The drug industry then should apply these principles in discovering and producing products which have specific utility, he added.

The industry's success can be seen in the increasing problem of finding proper identification.

To point this up, it was mentioned that 4,829 new products—3,686 new compounds and 1,143 new dosage forms—had appeared in the past decade. Each needing a medicinal sounding and realistic trademark.

Manufacturers were urged to give up tradenames they no longer are using, or maybe never used. It was estimated that out of the 10,000 registered with the United States Patent Office roughly one-half are dormant.

Threaten to Hamstring

Industry leaders expressed concern over continual introduction of new products with the threat of implied warranties—and damage suits—constantly a jeopardy to advances.

The recent damages awarded against Cutter Laboratories arising from live vaccine in a shipment of polio shots was cited as an example.

A California jury found that the laboratory was not guilty of any negligence and had complied to the fullest extent with the regulations and tests governing the production of the Salk vaccine, but still it awarded heavy damages to the plantiff.

Those present expressed the fear that pharmaceutical and medical research will be slowed to a walk, if the California verdict is upheld by the higher court.

The APMA also approved a merger with the American Drug Manufacturers' Association, subject to similar approval by the latter group. The new organization will be called the Pharmaceutical Manufacturers' Association.

P. W. JENNINGS, M.D., "BEST CITIZEN FOR 1957"

The Canton *Press-News and Record* recently carried a feature story and picture of P. W. Jennings, M.D., Canton. At the annual Chamber of Commerce banquet held March 26 at Culver-Stockton College, Dr. Jennings was designated "Best Citizen for 1957." Dr. Jennings, who received his 50-year pin in April, will have completed 50 years of medical practice in Lewis County in August of this year.

In making the presentation to Dr. Jennings, the Rev. Roy Blalock said in part, "The award which is being made this evening is a recognition of the general worth of the recipient, and of the unusual regard in which he is held by this community.

"He is a man of many and varied interests, though his activities are never so diversified that one thinks of him in other terms than those of his professional integrity.

"He has, for many years, given active leadership to the civic organizations of this town. He has attained distinction in its fraternal circles. He is a respected and valuable leader in the life of his church. He has contributed both wisdom and means to the undergirding of the business and financial concerns of the community.

"He is a man whose counsel and skill is habitually sought for help in every kind of problem—from headaches, to our heartaches.

"We know of his unusual ability to appreciate people—just people, for their own sake, and that he has a positive genius for finding an interesting personality in the most ordinary of human beings."

Dr. Jennings was graduated from Washington University School of Medicine in 1908 and began his practice in Williamstown in August of 1908 and moved to Canton in 1922. Active in the affairs of his community, Dr. Jennings was a charter member and the first president of the Kiwanis Club, director of the first board that organized the Canton State Bank, member of the Culver-Stockton board since 1934, active Mason and a Shriner, member of the Chamber of Commerce, and actively associated with many other worthwhile projects in Canton.

Not only has he been prominent in the life of his community, but he has been active in his chosen profession. Twice he has been vice-president of the Missouri State Medical Association; he has been secretary of the county medical society composed of Lewis, Clark and Scotland Counties; he has been the physician for Culver-Stockton College for many years; and has been the physician for the C.B. & Q. Railroad.

The Rev. Blalock concluded by saying, "Dr. Jennings richly deserves to be named 'Best Citizen for 1957.' In honoring him, we do honor to ourselves and to our whole community"

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 **June, 1958** **Number 6**

Intestinal Obstruction

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INTESTINAL OBSTRUCTION has perhaps received more study in the hospital, clinic and laboratory during the last fifty years than almost any subject in the field of medicine with the possible exception of cancer. The shocking mortality rates prevailing at the turn of the century, ranging upward of 60 per cent even in the better clinics of the world, have been reduced step by step as various elements in the pathogenesis and pathologic physiology have been clarified in the laboratory and the lessons learned therein transferred into more intelligent management of the patient. Yet it is a sad commentary that many segments of the profession have failed to keep abreast of current advances in therapy with the result that far too many patients still suffer irrevocable damage as a result of procrastination and failure to promptly apply now well recognized principles of early diagnosis and management.

Results in the treatment of intestinal obstruction at the turn of the century had improved little since the latter nineteenth century when Sir Frederick Treves was speculating upon the possibility of metallic mercury gradually opening up a passageway through the obstructed bowel. Despite increasing adoption of the dictum that "The sun must not set upon the unoperated case of intestinal obstruction," patients continued to die for want of appreciation of the basic physiologic faults exerting lethal influence.

Time does not permit a detailed account of the prodigious amount of work which has been devoted to a better understanding of the pathologic changes associated with intestinal distention. Excellent reviews are those of Cooper,[1] Ochsner[2] and Cohn,[3] and most of the important data have been assembled in a convenient and informative manner in the most recent edition of Wangensteen's[4] classic monograph, "Intestinal Obstructions." Certain landmarks along the road to present understanding do command attention. Hartwell and Hoguet,[5] working largely with high experimental obstructions demonstrated significantly longer survival of animals who received large amounts of saline solution parenterally. This work provided an impressive demonstration of the part played by metabolic alterations in the pathologic physiology of intestinal obstruction, and emphasized the need for fluid and electrolytes in these patients. Application of this therapeutic principle brought the first significant drop in the reported mortality rates and paved the way for later demonstration that distention and its sequelae play a far larger part than toxemia in bringing about the illness and death of patients with non-strangulating types of obstruction.

The problem of "toxemia" occupied investigators extensively during the second and third decades of this century. It was widely assumed that the critically ill, shock-like picture seen in patients with intestinal obstruction must be produced by a toxic substance absorbed from the material contained within the obstructed intestine. Absorption was thought to occur by way of the lymphatics, through the mesenteric veins, or perhaps from the peritoneal cavity after the toxin had permeated the damaged intestinal wall. Bacterial toxins, histamine-like substances, products of decomposition of either intestinal contents or the lining of the gut itself, and many other possibilities were investigated by various groups. Results were conflicting and confusing; the various reports difficult to reconcile and interpret. Most agreed, however, that absorption would not occur in the absence of damage to the intestinal wall itself. Several devices and procedures were designed for the removal of this supposedly toxic material from the obstructed loops, most of them today of little more than historic importance. Powerful evidence against significant absorption of toxins from the lumen of the gut was produced by the work of Wangensteen[4] and others

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Presented to the 100th Annual Meeting of the Missouri State Medical Association, St. Louis, April 13-16, 1958.

indicating that there is a marked diminution in the absorptive capacity of distended loops. Relegation of toxemia to a place of secondary importance in non-strangulating obstruction, however, did not take place until the important work of Herrin and Meek,[6] to be discussed later.

The circulatory disturbances produced by intestinal distention deserve mention at this point because of the relationship which they must bear to the possibility of absorption from within the distended intestine. Many excellent experiments have shown a progressive decrease in the circulation through the intestinal wall as intraluminal pressures increase. Gatch, Trusler and Ayers[7] presented one of the most significant studies of this response to distention; they demonstrated complete anemic stasis when the pressure in the bowel was equal to the arterial pressure. Gatch and Culbertson[8] later pointed out that 20 mm. of mercury distention would produce anemia of the intestinal mucosa. Many other investigators have shown that progressive decrease in blood flow through the intestinal wall is the inevitable result of increasing distention. The findings confirm the deductions made by pathologists long ago in explaining the occurrence of multiple areas of anemic necrosis scattered along the antimesenteric portion of the intestinal wall in autopsies carried on after protracted severe distention. You may be interested in work which was done in the laboratories at Wayne University some years ago.[9] Complete severance of the blood supply to a portion of the small intestine was tolerated well so long as distention did not occur; if a blind end was produced and the loop thereby caused to distend, necrosis occurred in every instance. Diminished circulation through the intestinal wall is now generally accepted as one of the most important pathologic consequences of intestinal distention which must be dealt with in treating the patient suffering from this condition.

The mid and later twenties were noteworthy for the development of suction siphonage as a means for nonoperative decompression of the distended intestine. The development of duodenal drainage by Ward [10] and by Wangensteen,[11] and the devoted promotion of its use by Wangensteen[4] brought the second significant drop in mortality rates in patients treated by them and by others properly using the technic. Its success foreshadowed the work of Herrin and Meek[6] and that of Taylor, Weld and Harrison[12] who clearly established distention itself as the initiating factor responsible for the dehydration and electrolyte imbalance resulting from non-strangulating intestinal obstruction. These investigators placed on a firm basis what Wangensteen[4] has called the "mechanistic" concept of the pathogenesis of intestinal obstruction in contrast to the previously widely held idea that absorption of toxins from within the lumen of the gut was responsible for the mortality. Demonstration that distention alone would produce all the signs and symptoms of obstruction in the experimental animal, even though a tube within the distending balloon drained off all intestinal contents, finally relegated "toxemia" to a place of secondary importance among the factors detrimentally affecting obstructed patients.

At about the same time a practical technic for intubating the intestine was developed by Abbott and Miller[13] who utilized a balloon tipped, long intestinal tube for studying intestinal physiology. The work of Herrin and Meek[6] stimulated Abbott and Johnston[14] to use this tube to treat patients with intestinal obstruction successfully by intestinal intubation. This further extension of the suction drainage principle made possible efficient nonoperative decompression of the distended intestine and added an important tool to the therapeutic armamentarium.

The studies so far discussed emphasized the role played by distention itself in bringing about the metabolic alterations so often responsible for death. Strangulation introduces another all important consideration. The possibility of occlusion of the mesenteric supply to a loop of gut is the Sword of Damocles which dangles constantly above the head of the patient with intestinal obstruction. Interruption of the mesenteric blood supply introduces a hazard greater and more rapidly lethal than the condition which has been discussed to this point. The rapid deterioration of these patients makes urgent demands for prompt and efficacious treatment which can be intelligently applied only if one clearly understands the bases for the clinical picture dealt with.

The common causes of internal strangulation are adhesive bands, usually postoperative in nature, followed by volvulus, intussusception, internal hernia and a variety of other less frequent causes. The common denominator of all is interruption of the mesenteric blood supply, infarction of the involved loop of intestine and loss of viability of the intestinal wall. In the presence of a relatively short loop, distention is commonly followed by rather rapid necrosis of the intestinal wall with perforation and peritonitis. The picture has been less clear with respect to the excessively rapid deterioration taking place in these patients even without perforation. If the loop involved is a long one blood loss into the lumen and into the wall of the intestine appears to be an important factor as pointed out by Wangensteen[4] and others. In loops of moderate length the pathologic physiology relates to permeation of the intestinal wall whose viability has been impaired, by bacteria, bacterial toxins or other agents. Many efforts have been made to demonstrate the nature of the toxin responsible for the large amounts of peritoneal fluid, at first pinkish and relatively innocuous when injected into an animal, later black and highly lethal, causing death of the experimental animal within a few hours. Significant experiments in this field were reported by Trusler, Reeves and Martin.[15] Their evidence was against a bacterial basis for the critical illness of these patients. More recently the effectiveness of antibiotics in diminishing or postponing the lethal consequences of strangulation has again raised the question as to whether the toxemia may not be bacterial in origin. Nemir and his associates,[16] working at the University of Pennsylvania, have demonstrated what they believe to be a toxic chemical substance derived from the strangulated loop. There can be little doubt that in strangulation there is permeation of the intestinal wall by some substance which is highly toxic after its absorption from the peritoneal cavity. There are few if any surgical emergencies more urgent than that posed by intestinal strangulation.

Adynamic ileus deserves special consideration among the conditions characterized by intestinal distention. Reflex inhibition of intestinal activity frequently follows operation or severe trauma, and is also commonly seen with retroperitoneal hematoma, spinal injuries, severe infection, pneumonia, cardiac decompensation and other systemic disorders. The loss of intestinal motility, reflex at the outset, is perpetuated by the inhibitory effect of continuing distention upon the musculature of the gut. Indication that this inhibition is but relative is found in the fact that balloon-tipped intestinal tubes will readily pass down the intestine, the musculature regaining its propulsive power as soon as the over-distention has been relieved by suction. The inevitable conclusion must be that nonoperative gastrointestinal suction drainage is far and away the most effective means for treating adynamic ileus. Demonstration by Wangensteen and Rea[17] and by others that swallowed air contributes the major portion of the distending gases further points the way to the logical means for preventing distention following operation or severe trauma. A simple indwelling gastric tube may be depended upon to remove the swallowed air which normally constitutes 70 per cent of the distending gases. A more widespread use of postoperative or post-traumatic gastric suction would prevent most of the severe adynamic ileus consequent upon these conditions.

The use of drugs in the treatment of abdominal distention has been disappointing. While it is true that a few drugs will stimulate peristalsis, it is simpler and far more effective to prevent distention by keeping the stomach free of swallowed air, or to remove the distention once it has occurred by suction drainage rather than to hope that further stimulation of an already over-stretched intestinal musculature may cause it to regain its propulsive power.

It is difficult to summarize the consequences of severe intestinal distention briefly because there are so many factors playing a part. Wangensteen,[4] concluding his chapter on "The Effects of Distention," gives an interesting and valuable summary of the probable lethal factors in obstruction: "Apart from the loss of fluids and electrolytes which are of serious consequence in high obstruction alone the chief effects . . . are mechanical and concern intra-enteric pressure as related to the absorption and viability of the bowel . . . every available evidence points toward a diminution of a mesenteric venous absorption with increased intraenteric pressure. . . . Observations made on patients with high grade simple obstruction of both the small intestine and colon . . . indicate that as long as the peritoneal coat of the gut is intact—that is, as long as the bowel is viable, transperitoneal absorption does not occur and the patient remains in good condition. The results of this experimental inquiry are wholly in accord with . . . clinical observations and indicate that the chief lethal factor in simple obstruction is permeation of a gut wall whose viability has become impaired by bacterial and other deadly agents. In strangulating obstructions, apart from the blood loss factor, this too is the chief concern. It would in consequence appear that the rationale of well directed therapy should be reduction of intra-enteric pressure by decompression or release of the obstructing agent before the viability of the bowel is impaired."[4]

The story of the management of intestinal obstruction through the years is a fascinating one. Physicians are so prone to embrace each new therapeutic modality that we tend to go overboard for first one method and then another. For years immediate operation was the choice in all cases. Demonstration of the harmful effects of distention and of ability to control them by suction drainage then led to a widespread adoption of nonoperative decompression, all too often in cases in which it should not be used. Failure to understand and to properly apply the principles and indications for use of these methods and dissatisfaction with some of their recognized difficulties now seem to be leading many to completely abandon intubation in favor of a return to operative treatment for all cases. Unfortunately, one sees the field divided into camps, each supporting its pet theory or idea as to treatment. while the truth lies sometimes between them and more often in judicious combination of several principles and methods of therapy. Thoughtful evaluation of the factors listed in this paper and acquaintance with the many contributions to understanding of this condition should lead to a more logical approach to the problem.

Early diagnosis should be the greatest asset in the management of intestinal obstruction. It should be obvious that the consequences of distention can best be avoided by adequate therapeutic measures undertaken before distention has become a problem. Most important is that all physicians be on the alert for the possibility of intestinal obstruction as a cause of abdominal pain, vomiting or distention. Much harm has been done by the teaching that constipation, obstipation and fecal vomiting are classic indications of the presence of intestinal obstruction. I am told that one of my predecessors in the Chair of Surgery at Louisville was accustomed to begin his lecture on intestinal obstruction by reading from the textbook these so-called "classic signs"—constipation, obstipation and fecal vomiting, after which he would throw the book out the window and say, "Gentlemen, these are not signs and symptoms of intestinal obstruction, they are those of impending dissolution." The early signs of intestinal obstruction are crampy abdominal pains and vomiting which in its early stages consists of whatever happens to be in the stomach. Constipation and obstipation will occur only when the intestinal tract distal to the point of obstruction has emptied itself. I have frequently seen bowel movements and even, on occasion, diarrhea in the presence of complete mechanical intestinal obstruction. Could we get people to put aside constipation, obstipation and fecal vomiting as signs of intestinal obstruction and depend upon earlier diagnostic criteria, many lives would be saved. More wide-spread use of scout films of the abdomen would also be life saving. These films can be taken with x-ray machines of even moderate capacity, including bedside units. Demonstration of fluid levels in the erect or lateral decubitus films and gas-filled loops on the supine exposures are pathognomonic of obstruction and they represent the only laboratory examination of value in the diagnosis of ileus, either dynamic or adynamic.

Recent years have seen an increase in operative management of patients with intestinal obstruction and there can be no question but that there are many instances when this is desirable and even at times imperative. The need for early exploration of patients with strangulation has already been emphasized. Severity of the pain and rapid deterioration of the patient, coupled with a deep-seated constant pain persisting between cramps, should make one suspect strangulation and turn at once to operative rather than nonoperative forms of treatment. Administration of electrolytes and blood during the hour or so almost invariably required for preparation of the operating room is essential for the welfare of the patient and may actually be life saving.

Operative treatment is also indicated if the diagnosis of mechanical obstruction appears reasonably sure and there is no distention of consequence. Strangely enough one sometimes sees people today who believe that a diagnosis of obstruction demands passage of some sort of tube. These tubes have as their sole purpose the removal of distending gases; obviously if these gases had not accumulated there can be no indication for the use of the tube other than postoperatively to prevent ileus. Operative release of the obstructing agent will prevent distention before it becomes a problem.

Mechanical intestinal obstruction in the nonstrangulated patient will usually require operative release of the obstructing agent, but if the distention be considerable, preoperative decompression will greatly benefit the patient. It will permit one to carry out the necessary operation at the optimum time with the patient in the best physical condition for such treatment. However, one should not persist unduly long in his attempts at intestinal intubation if his efforts do not meet with success. The patient being treated by gastrointestinal suction must be progressively improving from the time suction is instituted. If one is not achieving decompression in from 24 to 36 hours and if the patient's condition is static or continuing to deteriorate, however gradually, one should desist from his efforts to intubate and explore the patient before he suffers further evil consequences of his distention. If the distention is severe when the abdomen is opened and if the large gas-filled loops are difficult to manage and prevent adequate visualization of the obstruction, operative decompressive measures are in order. The "aseptic decompressive technic" of Wangensteen[18] or perhaps even more simple needle aspiration offer safe means for accomplishing this end without peritoneal soiling. Such decompression will make possible adequate exposure for elimination of the obstructing agent without excessive trauma to the gut.

Adynamic ileus, on the other hand, should not be treated by operative measures. The only such technic which could be considered, operative decompression of the bowel or enterostomy, are not appropriate where the basic difficulty is loss of propulsive power of the intestinal musculature. These operations not only fail to relieve the condition but will add a further harmful stimulus whose effect will be to aggravate the ileus. Small bowel enterostomy has been abandoned by most surgeons because it not only adds further operative trauma but drains only a loop or two and these at best only poorly. Should one explore a patient with adynamic ileus with the understandably mistaken diagnosis of mechanical obstruction in its later stages, it is far better to thread an intestinal tube through the pylorus and into the small bowel at operation for postoperative suction drainage. This we have done successfully on many occasions, and I believe it is a thoroughly sound procedure.

Colonic obstruction is beyond the scope of this presentation. However, one would be remiss in presenting a paper on intestinal obstruction did he not emphasize the need for colostomy rather than intestinal intubation as the primary attack upon colonic distention. Gastric and duodenal tubes are completely ineffective against colonic distention and the balloon-tipped intestinal tube cannot be depended upon to pass through the ileo-cecal valve soon enough to be of benefit to the patient even should one be eventually successful in getting the tube into the colon. Proximal colostomy must remain the mainstay in the treatment of obstruction of the colon.

Early diagnosis and a judicious combination of nonoperative suction methods with operative treatment when indicated will save the lives and protect the welfare of many patients who would otherwise succumb to the evil consequences of distention. At the risk of over-simplifying the problem, I might well enumerate a few basic principles:

1. Administration of fluid including electrolytes and frequently blood is imperative in all cases. Most will give evidence of fluid loss and electrolyte imbalance when first seen, and these require prompt correction simultaneously with the initiation of other therapeutic measures.

2. If there be reasonable suspicion of strangulation as indicated by severe symptoms, persistent vomiting, excruciating cramps with pain continuing between cramps, and excessively rapid deterioration of the patient, one must not temporize but should explore the patient as promptly as possible for release of the strangulating agent. Administration of fluid, electrolytes and blood are of vital importance in preparing this patient during the hour or more commonly required for assembling of the team and preparation of the operating suite. Their use often means the difference between life and death of the patient.

3. In the early case in which the diagnosis is reasonably clear and before distention has become severe, early operative intervention is the treatment of choice. There can be no justification for intubation which has as its purpose the relief of distention if there is, in fact, no distention of consequence. Operative release of the obstructing agent before further distention takes place should be the rule. These two situations comprise the indications for immediate operation.

4. If the patient has suffered distention to the point of physiologic derangement, and if there be no reason to suspect strangulation, preoperative decompression by gastrointestinal suction drainage is in order. This will make possible correction of the physiologic disturbances making the patient ill and permit later elective release of the obstructing agent when the patient is once more in good condition, no longer suffering from the dehydration and electrolyte imbalance caused by his severe distention.

5. Adynamic ileus can usually be prevented by gastric suction during the day or two subsequent to operation or after severe trauma likely to cause intestinal atony. Once distention has developed, gastrointestinal suction drainage is by far the most effective means for relieving the patient's symptoms.

6. Finally, colonic obstruction will require proximal colostomy for decompression. The intestinal tube cannot be depended upon to pass through the small intestine and ileo-cecal valve with enough rapidity or regularity to justify its use as a primary approach to the relief of colonic distention.

Thoughtful adherence to a program such as this should materially improve results in the management of patients suffering from intestinal obstruction.

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Staphylococcal Infection

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INCREASED INTEREST in staphylococcal infection has led to many studies by qualified investigators. These studies concern the matters of frequency of infections of host reaction and of virulence of the staphylococcus itself.

That more staphylococcal infections are being encountered in hospitals is implied by such studies as those of Finland.[1] Outside the hospital, on the other hand, Miles and associates[2] studied the nasal carrier state in normal persons in 1944 before the era of antibiotics and the percentage of the carrier state was closely comparable with that found by Gould and McKillop[3] in similar studies in 1954 during the period when antibiotics were widely used. It seems reasonable to assume, therefore, that the increase in staphylococcal infections is not due to any increase in the carrier state in the general population. These organisms are being found more frequently and in locations that previously were free from their presence. In this connection it is a striking fact that the competitors of yesteryears, the hemolytic streptococcus and pneumococcus, have dropped in the background both as to frequency of occurrence in infections and as to the locations where they were often found. Thus in our hospital in 1938 and 1939 there were 89 infections by hemolytic streptococci while in the 10 years from 1945 to 1954 there were only 19. The sharp decrease in the number of cases of lobar pneumonia attests to the decreased number of infections by the pneumococcus. In the 10 years from 1948 to 1957 there were 168 infections by staphylococcus listed, while in the 10 preceding years there were 68 in the same hospital. In the absence of streptococci and pneumococci either the staphylococcus is more readily available for contact with human tissue cells or the cells of the host have become less reactive to the streptococci and pneumococci and more reactive to staphylococci.

The matter of host reactivity has been studied. Eckstedt[4] has devised methods for purifying both the reacting factor in serum and the coagulase factor in the staphylococcus. From his studies he concludes that human serum possesses an antibacterial factor which coagulase opposes so that staphylococci with weak coagulase production are more easily inhibited and vice versa. Besides this protective substance in the serum the neutrophilic leukocytes play an important part. This factor is complicated by the fact that while leukocytes engulf staphylococci they also permit the bacteria to live[5] so that when the leukocyte disrupts the bacteria escape and thus may remain in tissues for long periods of time.

The staphylococcus is endowed with many products, such as pigment, coagulase, hyaluronidase, leukocidin and hemolysin. In spite of exhaustive studies there is no agreement that any one of these factors is alone responsible for virulence with the possible exception of coagulase. Gillespie[6] found that coagulase-positive cocci were uniformly related to the production of hemolysin. The lack of definite evidence results in stressing host resistance or lack of it in determining the possibility of infection and its severity.

Long established clinical experience furnishes a clue. Staphylococcal infection means pus. Hence its ancient name—Micrococcus Pyogenes. From this it seems that the readiness of leukocytes to react with staphylococci and the outpouring of such cells in great numbers point to the factors which must be identified if the production of disease is to be understood. The factors are complex, e.g.: (1) the local environment, i.e., the abscess membrane which drugs and antibiotics cannot overcome; (2) the host environment, e.g., the freedom from disease when the infection occurs enhances resistance while debilitating states undermine host resistance.

The present report deals with a study of the infections listed in our hospital records, the identification of which may be validly assigned to the staphylococcus; and further deals with the questions of staphylococcal post-influenza pneumonia, septic pneumonia and bacteriemia.

Fever, leukocytosis and predominance of staphylococci in the exudate were the criteria used in making a diagnosis.

Of the 168 records of infection referred to as occurring in the 10 years 1947 to 1956, 120 were selected, as having more nearly met the criteria for the diagnosis of infection.

TABLE 1

STAPHYLOCOCCAL INFECTION

Distribution in the body

Pharyngitis	5	Pyelo-Nephritis	12
Bronchitis	14	Cystitis	17
Bronchiectasis	2	Endocarditis	1
Pneumonia (infant)	1	Post-commissurotomy	1
Empyema	3	Congenital Heart	1
Sinusitis	4	Leukemia	1
Otitis Media	1	Hodgkins	1
Parotitis	1	Diabetes with Positive Blood Culture	3
Accessible Abscess	44		
Enteritis	5	Diabetes—Carbuncle Negative Blood Culture	3

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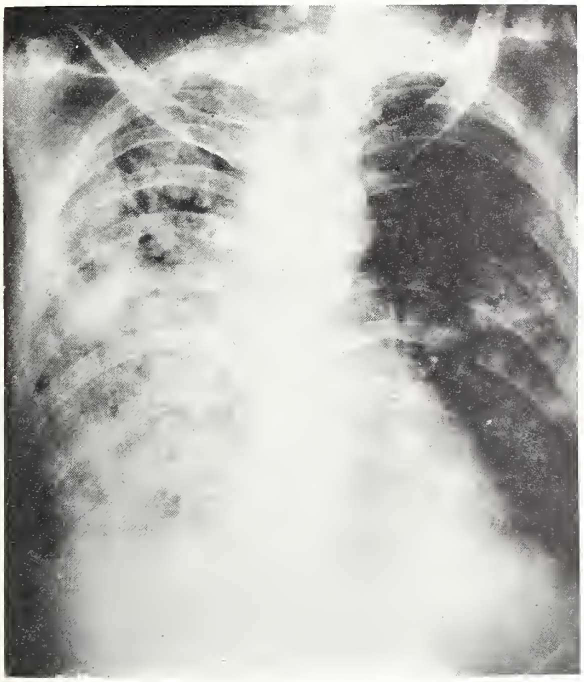
The respiratory infections listed as bronchitis were in most instances accompanied by mild increases in pulmonary density. While the total number is not great, it is important in contrast with the total absence of such infections by hemolytic streptococcus during the same period.

The occurrence of staphlycoccal urinary infections while not great in comparison with the large number of such infections caused by Escherichia Coli, is nevertheless significant.

Pneumonia 1: Postviral (Influenza) infection of the lungs was described by Netter and others in 1889 during the epidemic of influenza of that year. In this country an excellent description of this variety of pneumonia was offered by Chickering and Park[7] in 1919, and later by Chickering in Cecil's "Text Book of Medicine." The x-ray picture is characteristic and shows scattered fairly round shadows like cotton balls throughout both lung fields each measuring 4 to 8 cm. in diameter. The sputum is yellow or pinkish yellow and contains swarms of Gram positive cocci in and out of leukocytes. The dyspnoea is intense, the blood cultures sometimes positive and death usually occurs within a week. Although none of our cases received penicillin in what might be unusual amounts, the disease is almost always fatal. Doses as high as 30 million units were used in one of our cases. There were two such cases in the fall of 1957 and three in 1942. These cases came to autopsy but are not included in the preceding tables.



Pneumonia 2: Bilateral infiltration of the blood-borne or "septic" type is present in fatal cases of bacteriemia without preceding influenza. There is no characteristic x-ray picture. The sputum may not attract attention. Abscess may form and reach large size especially in the right lower lobe. The condition is most often seen in the presence of diabetes.

TABLE 2
BACTERIEMIA

	Died	*Recovered*	*Autopsy*
12 Cases	8	4	8
3 Diabetes	3		3
1 Peritonitis	1		1
1 Leukemia	1		1
1 Pharyngitis		1	
1 Hodgkins Disease	1		1
1 Lung Abscess	1		1
1 Cardiac Surgery—Post-operative	1		1
1 Subacute Endocarditis—Reinfection		1	
1 Carbuncle		1	
1 Congenital Heart Disease		1	

The mere presence of staphylococcal bacteriemia is not necessarily a fatal sign. The presence of diabetes obviously aggravates this infection as it does other bacterial infections. The portal of entry was superficial purulent inflammation in the four fatal cases. In this series diabetes without bacteriemia but with local infection occurred three times. All these recovered. Fatal infection in the presence of diabetes occurred as often when antibiotics were available as in the pre-antibiotic days.

TREATMENT

For accessible abscesses surgical drainage is obviously the best treatment.

Petersdorf[8] and associates studied the test tube sensitivity of 100 strains of staphylococci derived from patients. They concluded that there was a close agreement between clinical usefulness of antibiotics and test tube sensitivity tests. In mice, Amsterdam[9] and Schneiterson found no correlation between sensitivity and virulence. Petersdorf recommended 20 to 40 million units of penicillin per day with 2 to 4 grams of Chloramphenicol. A procedure has been widely adopted and was used in the treatment of the patients in this study. This is to test the plate sensitivity of the staphlycoccus obtained from the purulent material, whether sputum or purulent discharge and use those antibiotics to which the particular organism was most sensitive. Penicillin was always one of these and to this was added such other antibiotics as were indicated by the sensitivity tests. No unusually high doses were used but 2 million units per day with other antibiotics were commonly employed.

In a report by Melton and Logue[10] on the treatment of Staphylococcal Endocarditis doses ranging from 12 to 160 million units of penicillin per day with other antibiotics were used. In one patient who died, a concentration of 2,000 units per cubic centimeter of blood was attained. Six other patients remained well for from one to three years.

Morton's Toe

Intractable Pain About the Fourth Metatarsophalangeal Articulation

ROBERT M. O'BRIEN, M.D., *St Louis*

TWO TYPES OF metatarsal pain are common. The one, "metatarsalgia," is manifested by a dull, aching pain in the sole of the foot in the metatarsal area. This pain is relieved by rest and the use of arch supports.

The second type of metatarsal pain, often called Morton's toe, is spasmodic, lancinating and radiating. It usually affects the fourth toe and its metatarsal articulation. Conservative treatment in the form of arch supports and metatarsal bars is unavailing.

It is the purpose of this paper to discuss the latter condition. First described by Morton[1] in 1876, he attributed its etiology to flattening of the transverse arch with resultant pressure of branches of the lateral plantar nerve between the fourth and fifth metatarsal heads. For treatment of the intractable cases, removal of the fourth metatarsal head was advocated. This mutilating operation has never been popular.

More recently, Betts[2] of Australia and McElvenny[3] of Chicago independently offered a new explanation of the cause of Morton's toe and a rational, effective method of treatment.

In their combined series of more than 50 patients the etiology of this pain was found to be a neurofibromatous type of lesion involving the most lateral branch of the medial plantar nerve, that is, the branch between the third and fourth metatarsal heads (fig. 1).

Surgical removal of this tumor has resulted in immediate, dramatic relief of pain. Baker[4] and May[5] reported an additional 29 cases with identical findings and results of operative treatment.

CASE REPORT

The first patient with this condition I recognized was seen in 1943. Mrs. A. S., a 64-year-old housewife, had been under my care for about one year. She complained of intermittent, recurrent pain in the fourth toe and metatarsal area of the left foot, of several years' duration. The pain was increasing in intensity and the episodes were becoming more frequent. When

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Staphylococcal Infection—(Continued)

There is a sound reason for using higher dosage of penicillin and other antibiotics in cases of bacteriemia. Host resistance is undoubtedly lower in such situations. It is not possible to answer this question in the experience reported here although it is not anticipated that results would be more favorable. Further trial with such high dosage should be employed. Furthermore there is no reported experience with such dosage in the treatment of post-viral pneumonia or in the septic pneumonia seen in diabetes with bacteriemia.

CONCLUSIONS

1. The frequency of staphylococcal infections is comparative. These infections are in locations previously the site of pneumococcal and streptococcal infection or in the case of the urinary tract of infection by Escherichia Coli.

2. Post-viral staphylococcal pneumonia is distinctive. Although all cases of bacteriemia without preceding influenza and ending in death showed pneumonia of the hematogenous type and although post-viral pneumonia was frequently attended by bacteriemia the septic type was never converted to the post-viral type or vice versa.

3. Bacteriemia while serious is not necessarily a fatal omen.

4. The fatal staphylococcal infections stress the importance of host environment. Diabetes is a special deleterious condition. Peritonitis was another.

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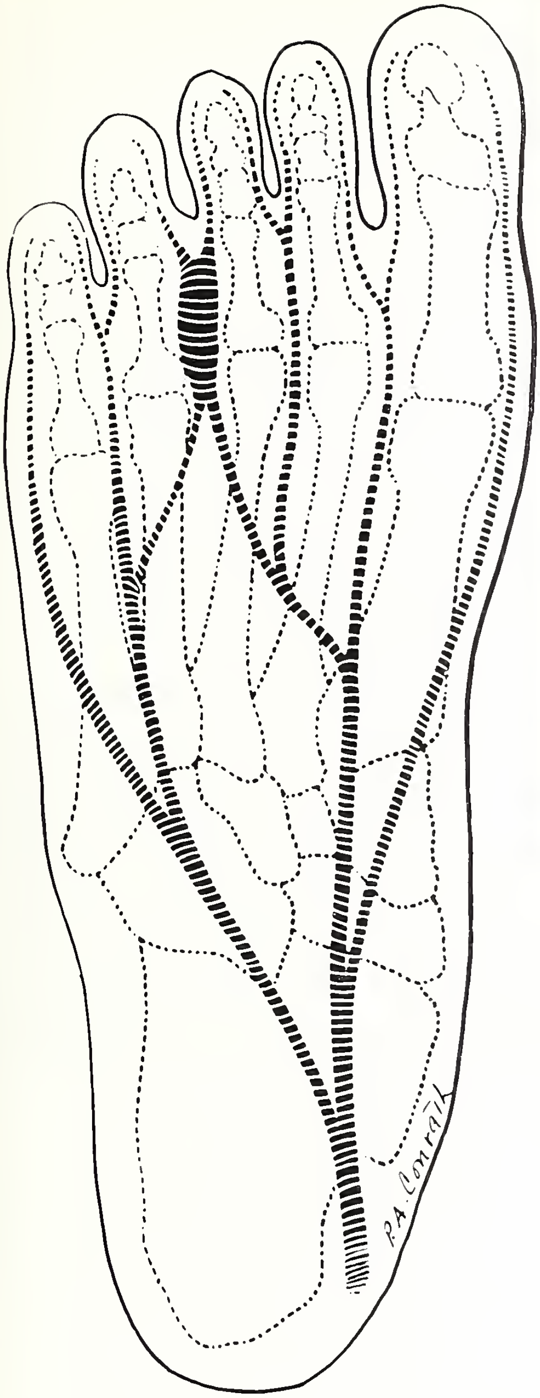

Fig. 1. Neuroanatomy of the foot showing the tibial nerve dividing into its terminal branches, the medial and lateral plantar nerves. The neuroma involves the most lateral branch of the medial plantar nerve and lies between the third and fourth metatarsal heads.

the pain occurred it was necessary for her to remove her shoe and manipulate her toes to get relief.

Prolonged periods of walking or standing were almost sure to provoke an attack and the patient had reached the point at which she was afraid to go downtown shopping because of the pain. The pain was severe, radiating into the fourth toe and also up the calf to the knee.

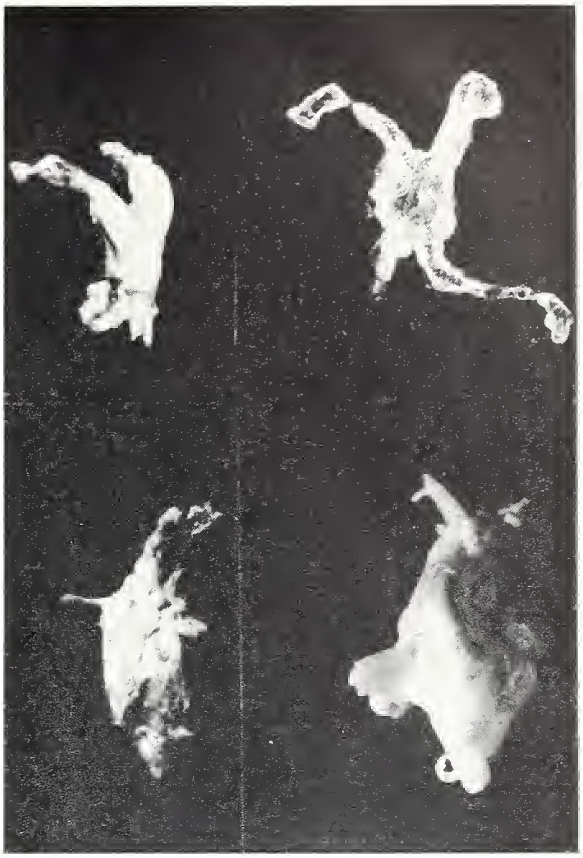

Fig. 2. Four typical gross specimens are illustrated above. The tumor is whitish-grey in color and soft in texture. In some cases it occurs at the bifurcation of the nerve; in others slightly distal to this point. Usually the mass is about 2 cm. in length and 1 cm. in width and thickness.

For almost a year I had given her intensive treatment with arch supports, foot exercises and metatarsal bars, without any relief in her symptoms.

On November 11, 1943, an operation was performed and the typical findings of McElvenny and Betts encountered: a soft, greyish-white fibrous mass 1 cm. by 0.5 cm. was present as an enlargement of the branch of the medial plantar nerve at its bifurcation between the third and fourth toes at the level of the bases of the proximal phalanges.

The pathologist reported as follows: "Sections are characterized by the appearance of clusters of thrombosed vessels—some completely hyalinized. Many show recanalization by small vessels. The histology of the vascular cores in some places simulated neurofibroma, being composed of peripheral nerve supporting elements and incorporating scattered myelinated fibers. Diagnosis: Neurofibroma."

Mrs. A. S. had immediate relief of her pain, and 15 years later has had no recurrence.

PATHOLOGY

Since 1943 I have operated on an additional 25 patients with similar findings and results. Typical gross specimens are illustrated in figure 2. Typical microscopic sections are shown in figures 3, 4, 5 and 6.

Dr. Geno Saccomono, formerly of the Department of Pathology of St. Louis University School of Medicine, made detailed studies of a number of these specimens and summarized his findings as follow: "The histologic picture is similar in all specimens examined. The most prominent feature is a marked increase in connective tissue collagenous fibers, seen between and around nerve bundles and actually invading the centers of nerves. Numerous small blood vessels are noted throughout the tissue, and some contain organized thrombi.

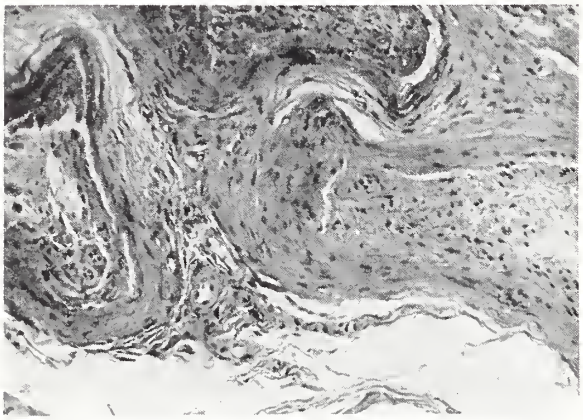

Fig. 3. Section stained with hematoxylin-eosin revealing abundant connective tissue elements surrounding nerve bundles.

"The pronounced increase of connective tissue and vessels which extend even into nerves is the outstanding feature of these tumors. This fibrosis accounts for the partial destruction of some nerve axones.

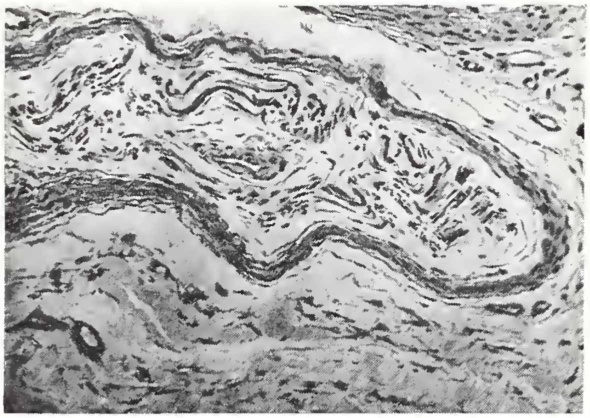

Fig. 4. Section stained with activated protargol. Note collagenous connective tissue epineurium surrounding central nerve axones.

"In view of the absence of marked proliferation of neural supporting elements or disorientation of nerve bundles and normal vasculature, the process probably should not be considered a true neoplasm but rather the result of an inflammatory reaction. The absence of inflammatory cells suggests that this is a healed stage. The condition could be aggravated from time to time by repeated irritation."

DIAGNOSIS

The diagnosis must be made almost entirely on the basis of subjective complaints and the failure to respond to a trial of conservative treatment.

Physical findings are few. The foot may appear normal or there may be spreading of the metatarsal arch with calluses underlying the metatarsal heads. In some cases there is well localized tenderness deep in the web between the third and fourth toes. Occasionally there will be diminished sensation along the adjacent borders of the third and fourth toes. There may be no detectable abnormal physical findings.

The history of intermittent, recurrent pain occurring in the metatarsal area or in the fourth toe is most significant. I always ask the patient what she does to get relief of the pain. Usually she will state that she must remove her shoe and manipulate her toes. The pain is so severe that the patient will do this out on the street or in a store, or wherever she happens to be when the attack strikes her. This story is pathognomic of a neuroma.

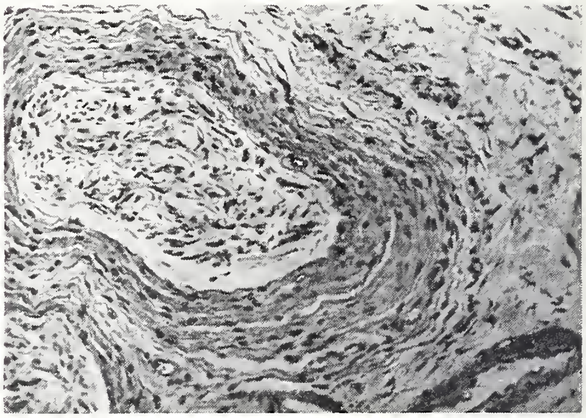

Fig. 5. Section stained with hematoxylin-eosin showing extensive fibrous thickening of epineurium and increased amount of perineural tissue.

Two typical histories are recorded below:

CASE REPORTS

F. S., female, 34 years old, stated that for seven years she had numbness up the back of the right calf. This was especially noticed when sitting after having been on her feet a while. About three years prior to treatment, the numbness got worse and pain began in the area between the third and fourth metatarsal heads. This has gradually increased in severity and frequency until she now has a feeling of "something sticking" in her right foot near the fourth metatarsal head. She has worn arch supports the last seven months, without relief of pain.

E. S., male, aged 43, a carpenter, states that three years ago he noted occasional pain in the right fourth toe, usually after being on his feet all day. Recently the pain has been of a burning, paralyzing nature and has been almost constant the last eight months.

Women were more often affected than men in our own series and in all reported cases. The condition is usually unilateral.

The differential diagnosis includes other causes of metatarsalgia: trauma, fatigue, fractures, Freiberg's infarction of the metatarsal head and arthritis. Chronic foot strain, overloading the structures of the feet by increase in weight and walking after a recent illness may be factors in causing pain in the metatarsal area.[5]

TREATMENT

All patients should have a trial of conservative treatment with rest, arch supports and metatarsal bars.

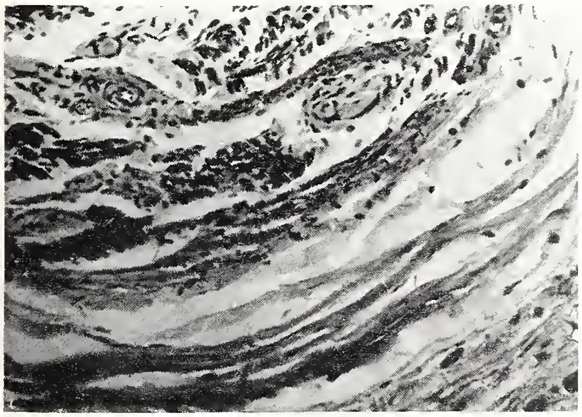

Fig. 6. Higher magnification of section similar to figs. 3 and 4.

The operative technic is not difficult. The exposure is shown in figure 7. A dorsal web-splitting about 1½ inches in length is made between the third and fourth toes. Dissection is carried down between the third and fourth metatarsal heads almost to the plantar aspect of the foot. A self-retaining mastoid type of retractor placed deeply in the wound gives good exposure. Pressure applied to the sole of the foot brings the lesion up between the metatarsal heads. The neuroma is dissected proximally and posteriorly until normal nerve is encountered.

The procedure may be done under local anesthesia, but is performed more easily under general anesthesia with the use of a tourniquet.

The resulting sensory disturbance in the adjacent borders of the third and fourth toes is slight and often the patient will not notice it at all. As a rule, relief of pain is striking and complaints of numbness unusual.

SUMMARY

Morton's toe or Morton's metatarsalgia is due to a neurofibromatous degenerative and proliferative lesion, involving the plantar nerve between the third and fourth metatarsals. The lesion has also been reported between the second and third metatarsals.

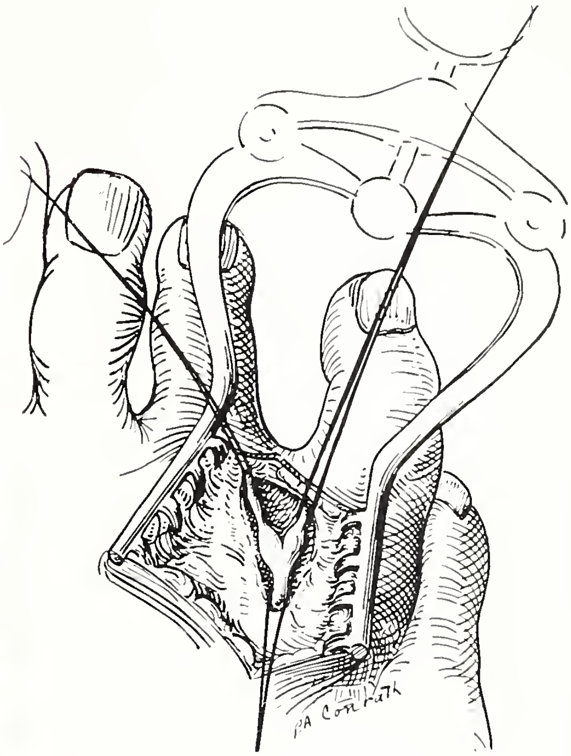

Fig. 7. The dorsal web-splitting incision is illustrated above. The neuroma lies quite deep in the wound. Pressure on the plantar surface of the foot brings the lesion into view.

Relief of symptoms can be expected following surgical excision of the tumor.

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Therapy of the Arrhythmias

WILLIAM A. SODEMAN, M.D., *Philadelphia, Pa.*

I WANT TO thank your committee for asking me to be here to talk to you today. It certainly feels good to be home.

I am going to talk about the therapy of some of the cardiac arrhythmias. I am not going to try to cover all facets and all aspects of therapy, but will concentrate on certain points I think important in the choice of drugs and in the approach of the patient.

There are four general areas of importance I want to stress, then I shall go on to the individual arrhythmias. The four general areas include rapid digitalization, the use of quinidine, the use of procaine amide, and carotid sinus pressure. These are all of importance therapeutically in various arrhythmias, and at times some of them are important as far as diagnosis is concerned.

First, I want to say something in a rather brief way about digitalis and the use of rapid digitalization. In atrial tachycardias, digitalis has its place. Intravenous lanatoside C is particularly adaptable to this problem and now enjoys wide usage. One wants a drug that will have rather rapid onset of action, which means a drug that can be given intravenously. When the drug is given intravenously and one gets into difficulty with it, one wants a short-acting drug so he can get out of trouble in a short period of time. Short-acting lanatoside C meets these requirements. Acetylstrophanthidin is a still shorter acting drug with still more rapid dissipation. Such a drug has its merits but requires rather sharp monitoring with the electrocardiograph and close watch as to what is going on in the patient. Consequently it is not used extensively in paroxysmal atrial tachycardia. The same thing is true of ouabain. Ouabain has more merit than is commonly given it. Usually if a patient has not had digitalis before, it can be given in 0.5 mg. dose by needle and repeated in 0.1 mg. doses hourly until an effect is obtained. Again, it is a drug in which monitoring is necessary to a great extent. Hence, lanatoside C is the common intravenous drug used under the circumstance being discussed, that of breaking a paroxysmal atrial tachycardia. Later I shall discuss the use of this digitalis preparation and its place in the general problem of the treatment of atrial tachycardia.

There are several circumstances in the arrhythmias in which prophylactic use of digitalis is of some importance. Generally one does not use the drug this way in heart failure because there are preparations sufficiently rapid in their action to apply in a short period of time and get the desired effects. But in the arrhythmias there are circumstances in which prophylactic use has its place, especially in surgical procedures on the heart. In the Stanford series, for example, a high percentage of patients with mitral stenosis developed atrial fibrillation postoperatively and digitalis prophylactically was helpful in controlling the rate. The other place in the arrhythmias in which digitalis is of importance prophylactically has to do with bouts of paroxysmal atrial fibrillation and paroxysmal atrial flutter unrelated to surgery. When ventricular rates are rapid, patients may develop rather marked symptoms. This is particularly true with atrial flutter. If patients have repeated attacks of atrial flutter with rapid ventricular rate, the only way in which the ventricular rate and the symptomatology may be controlled, if the flutter episodes cannot be prevented, is by digitalization. This means that when the patient goes into flutter, the ventricular response is cut down, the ventricular rate is slow, and the patient does not develop the symptoms which go along with a rapid ventricular rate.

One can see that in the arrhythmias the prophylactic use of digitalis does have its place.

Here I want to point out an extremely important problem in ventricular tachycardia. Generally speaking, digitalis is not used in this type of patient. Ventricular paroxysmal tachycardia is many times the result of digitalis therapy. If this is true and digitalis is pushed, the patient is likely to get into greater difficulty than he was in previously. But there are occasions, even though they are rare, when digitalis has its merits in ventricular tachycardia not resulting from digitalis therapy.

The second drug that I want to discuss in quinidine. I think all know that this drug prolongs refractory periods, that it reduces the excitability in muscle, and that it reduces the conductivity in muscle. These are important properties in the use of this drug in the treatment of arrhythmias so that quinidine is used quite extensively in all sorts of arrhythmias, atrial premature beats, paroxysmal atrial tachycardia, ventricular tachycardia, ventricular extrasystoles, atrial flutter and atrial fibrillation. This drug has sometimes been given the term of "broad band" in reference to arrhythmias, borrowing a term used in antibiotics. Quinidine has several effects that most do not think

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Presented at the Ninth Annual Scientific Assembly of the Missouri Academy of General Practice, October 30, 31, 1957, Jefferson City.

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about. One is its vasodilating action. It is a poor vasodilator, but at least it does not constrict the vessel—and in that respect, this action has some merit. This drug is never used for this purpose, although it is known to control angina under some circumstances. The other less known effect of this drug, I think, is important to understand. This is vagolytic action. It blocks vagal action so that the vagal effects upon the ventricle are likely to be inhibited. In other words, in rapid atrial activity inhibition of vagal effects permit the ventricles to respond at a higher rate. Now why is that important? It is important for the simple reason that if one is trying to break an atrial flutter and gives this drug to prolong the refractory period and reduce the excitability of the area (if one believes in a single focal area to account for the flutter) at the same time, more auricular contractions may get through to the ventricle. If the patient has atrial flutter, with 3 to 1 response, and has an atrial rate of 300 or 350, the ventricular rate will be around 100 or a little more. With this drug and release of vagal tone, even though the atrial rate may drop to 290, one is likely to get a remarkable increase in the ventricular rate, to 145 if the vagolytic effects permitted a 2:1 response, and the patient would likely develop more palpitation. For this reason, the drug is commonly used under this circumstance in combination with digitalis; and this is one of the major reasons for the combination. I think if one keeps the vagolytic activity of quinidine in mind, he will have a better understanding of these problems when they develop and will have a better opportunity prophylactically to inhibit this kind of reaction in his patient.

Now let us consider some of the contraindications to quinidine. When a patient has congestive heart failure and one gives a drug that depresses myocardial activity, the patient is likely to get worse. Here the effects of quinidine must be importantly avoided. Conduction defects are a problem of importance also. Individuals with partial heart block are likely to be thrown into complete heart block; and those who have complete heart block are likely to get into other difficulties. I shall mention those a little later at the appropriate time. If there is a situation in which this drug is necessary in the face of conduction defects one may use it, but he has to watch his patient even more frequently and more carefully, and actually again monitor his patient in the use of this drug by electrocardiography. Idiosyncracies, I think, speak for themselves and I do not see any merit in saying anything about that. Cinchonism, the purpuras, and so on, occurring at times with this drug, I think, are well known.

When quinidine is used in excess and toxicity develops, any of the arrhythmias controlled by this drug may be produced by it. Consequently one may see the development in his patient of the kinds of circumstances he is trying to prevent. This must be kept in mind not only in development of premature beats, but in runs of tachycardia, whether atrial or ventricular. *Ventricular tachycardias are more prone to develop with this drug if the patient has complete heart block.*

Difficulties with the use of quinidine are important, and such potentialities must be kept in mind and recognized early.

Quinidine has been used for many years in the treatment of arrhythmias. In more recent years, pronestyl or procaine amide has become available for use in many of the same situations. At first, this drug was used basically to treat ventricular tachycardia; but as time has gone on, it has taken a place in the treatment of atrial tachycardia and even in attempts to stop fibrillation and atrial flutter. It is gradually coming to the fore as far as its indications are concerned in many circumstances and many instances in which one would use quinidine. It is used by mouth, usually in capsules of 250 mg., and it may be given two to four capsules to a dose with repetition of two capsules at four to six hour intervals. Its uses intravenously and intramuscularly will be discussed later. One has the same problem of ventricular hyperexcitability with procaine amide as with quinidine in the presence of heart block. The same problems exist as with quinidine in many ways. Indeed these drugs are now often used interchangeably, and if one does not get results with one, one may try the other.

Quinidine is a peculiar drug in some ways. It is absorbed promptly and can be given intramuscularly in about the same dose, which indicates its absorption through the gastrointestinal tract is pretty complete. Its peak levels in the blood occur from one to three hours after administration, usually in about two hours. Since this is true, and if one is giving this drug to build up levels in the blood, it is given at two-hour intervals. The drug then is commonly given at two-hour intervals. If one carries out such a schedule and builds up the blood levels, the increments each two hours are less and less, and by the time one gets to the fifth and sixth dose, the increments are not great. This means that after one has used a single dose—say 0.2 gram, for four or five times every two hours—continuation of the same dose gives little additional benefit. This is one of the reasons why the drug is commonly used at two-hour intervals for five or six times, and then the dose is increased. One does not have to stop after five or six doses and start again the next day. But it can be seen that after five or six doses at two-hour intervals ten or twelve hours of a day are occupied. Then over a period of twelve hours or so, most of this drug is excreted. There is some left at 24 hours. If one would want to continue on, of course, after five or six doses with increased amounts, one could continue. But as one increases the dose, he would have to watch the patient rather sharply. If one has a patient hospitalized and does this during the day, the patient is watched without difficulty. But the number of nurses and the availability of house staff on the wards decreases at night, and if one wishes to continue medication throughout the night, special arrangements to monitor effects must be set up. Therefore, one stops and starts a new program the next day. This is basically the reason why the medication is stopped and restarted the next day at an increased dose.

I am trying to impress upon you the reasons why one varies these doses; the reasons why one carries out certain of these procedures and what one would expect. One can see from what I have said that if 0.2 gm. of quinidine is given five times daily today and nothing happens, and one repeats the procedure with 0.4 gm. doses tomorrow and the next day with 0.6 gm. doses, that one can add up the total and say he has given the patient 7 gm. of quinidine in a period of two or three days. This means very little. All that counts is how much you have given over that period of time when one has used short intervals and tried to build up the level in the blood. Consequently, adding up the doses over a period of several weeks and getting the total amount of quinidine gives a false and erroneous idea of what one might be doing with the patient or what one might be doing for the patient. What really counts are the jabs one makes at the patient in these ten or twelve hour periods.

If one uses this drug and determines blood levels, one will find the blood levels required for control in one patient may vary remarkably from the blood levels necessary in another; also in any single patient, generally speaking, the same general blood level is required to control the arrhythmia. This means that from person to person different amounts are necessary for good results, and there is wide variability in the amount of quinidine necessary from person to person to get results. Such findings explain why, in certain people, one does not get results with doses effective in others. If this is true it may be much more desirable to switch over to another drug—Pronestyl for example—and one may get remarkable results with rather small doses of that drug. The changing of these drugs, one for the other, at times has its merit. One may try one first, and then the other; or if one reverses the drugs, he may similarly get satisfactory results. There is quite a variability in the use and interchangeability as far as Pronestyl is concerned.

The next procedure I want to talk about is carotid sinus stimulation. When one stimulates the vagus in some way or other, in some people one gets a rather remarkable and dramatic effect such as a long period when there is no contraction and then the escape with the impulse coming from around the AV node. Whether the result is due to pressure on the carotid sinus, on the eyeball, or to Valsalva's experiment, the same kind of reflex activity is effected through the vagus; and is at times important in controlling paroxysmal atrial tachycardia. This is the procedure of choice but fails quite frequently because the carotid sinus is not manipulated. One has to feel for the carotid sinus bulge and run his finger up and down on it when he presses to be sure that he is obtaining pressure in the proper area. If one presses below the carotid sinus, one gets precisely the opposite kind of effect that one wishes and then, of course, no benefit results. It is important that one realizes where he is pressing, how he is massaging, and that he is massaging the carotid sinus. Usually one side is done first, the other side is done second, and then one may do both of them if he does not get results. One is usually admonished if he presses on both sides at the same time. I am sure that in older patients, particularly in those who have been digitalized, making the carotid sinus hyperactive, and in older individuals in whom sclerotic syndromes occur, bilateral pressure sometimes causes accidents, has caused hemiplegic episodes, and so on. I do not think this applies to all individuals and I do not think it applies to younger individuals in general. But I do think one has to watch fairly closely in what he is doing during this procedure or he will produce not only syncope but produce convulsions and a number of disturbing symptoms. A convulsion in such a patient, particularly a focal convulsion, has no bad effects generally; it usually frightens the patient. But it does indicate at least that one is doing what he wants to do.

I am not going into the carotid sinus reflex as far as its central effect or peripheral effect is concerned, and I merely want to talk about it in reference to what happens in the heart. Here one is likely to control a rapid ventricular rate under two circumstances, most importantly in paroxysmal atrial tachycardia and secondly in atrial flutter. One has to know this and realize this. If the patient has atrial flutter with a fast rate, let us say the ventricular rate is 180 on the basis of an auricular rate of 360, and if one presses on the carotid sinus, he may convert this 2:1 block in the flutter to 4:1 and the ventricular rate will drop from 180 rather precipitously to 90. One may think he has controlled atrial tachycardia when he has merely changed the conduction in atrial flutter. If one watches the patient as vagal tone diminishes following pressure release, in a short period of time the ventricle will respond irregularly in flutter. One can also watch pulsations in the neck when the patient is lying down to help differentiate. The differentiation of atrial tachycardia and flutter is important because there is a different background for the development of these two arrhythmias. Generally, in 90 per cent of the patients with atrial flutter there is some serious underlying organic disease that must be searched out if one has not made the diagnosis. It is important to know this. In paroxysmal atrial tachycardia, frequently the patient has no serious background cardiac disease at all. But in certain circumstances, especially in older people, paroxysmal tachycardia may be quite important, chiefly when coronary vessels are markedly sclerosed and shortened diastole impairs nutrition to heart muscle. Here the arrhythmia may precipitate patients into heart failure. It may precipitate a younger patient into heart failure when his heart is perfectly normal if it persists over a long period of time. Only occasionally is this true.

Carotid sinus stimulation is important, therefore, diagnostically in unravelling the type of tachycardia.

One may have to resort to other procedures to control atrial tachycardia. What does one do next if carotid sinus pressure does not give results? Usually one tries varying technics to stimulate the vagus nerve including production of vomiting. If that does not help, one may be faced with the use of a drug. Quinidine is in common use under this circumstance. Frequently, if the patient does not have any serious underlying disease and is not too remarkably symptomatic, some quinidine plus a barbiturate and some sleep, or quinidine plus some morphine and some rest, may be all that is necessary. If this does not give results, then it may be necessary to give the patient digitalis. I have already mentioned the intravenous digitalis preparations. When the patient has not had the drug before, you may use about one-half the digitalizing dose followed in several hours by about one quarter of the digitalizing dose of Cedilanid. This represents about 0.6 mg., and later 0.3 or 0.4 mg., and frequently will break these episodes. This is one indication for intravenous digitalis that is quite valid. There are not many others except in acute fulminating heart failure.

Important at times in the problem of paroxysmal atrial tachycardia is the electrocardiographic syndrome with a short PR interval and a long QRS, that is, the Wolff-Parkinson-White syndrome. This syndrome occurs in certain individuals subject to paroxysms of atrial tachycardia, and at times to paroxysms of atrial fibrillation. It is important to know and to recognize it for several reasons. First, from the prognostic standpoint these people are subject to attacks over long periods of time; and second, diagnostically it is important that it be recognized electrocardiographically for what it is, for an individual may be labeled as a serious cardiac patient because he has paroxymal tachycardia and this rather disturbing looking kind of electrocardiogram which, in itself, does not mean heart disease.

Let us consider another problem in tachycardia. Recently I saw a patient rather sharply digitalized on coming into the hospital. There was a rapid ventricular rate and atrial fibrillation. He developed a digitalis tachycardia, most important to recognize for what it is. Again this brings up the point in arrhythmias of searching for and knowing the underlying factors that come to play in their development. Here, it was digitalis. Just last week, I had a patient in whom an auricular tachycardia occurred in the presence of silent myocardial infarction. No pain whatsoever occurred in this individual. Still this auricular type of tachycardia occurred. Ventricular tachycardias commonly occur under the same circumstances, and when this does happen, it is important to stop and think of what might be the underlying condition, or what might be an underlying set of circumstances to cause the development of this kind of arrhythmia. It is most important to know and to understand the background disease.

Another patient seen recently had a superventricular tachycardia. This patient was not controlled by ordinary means of carotid sinus pressure and so on, was not controlled by oral quinidine and the like, so that intravenous quinidine was utilized. Here I return to the point of the importance of monitoring intravenous quinidine therapy by electrocardiography. Quinidine was started at a rate of 0.045 gm. per minute, the heart rate was 214, and the QRS complexes were normal. As the infusion continued, the rate dropped from 214 to 207. It stayed at 207 but the QRS started to widen. In other words, there was some depressing defect upon conduction. The QRS interval progressively widened to 0.11 seconds. The toxic effect of quinidine in this patient, manifested by this change in the electrocardiogram, could not be recognized without electrocardiography. The heart rate went down to 187; and, 16 minutes after, when the injection was stopped, the rate was down to 176. But it was stopped because the QRS got to 0.12 seconds, the ordinary limits for bundle branch block. When quinidine has this remarkable effect, it is likely to cause and set off excitable areas. Again, one cannot recognize this without electrocardiography. After quinidine was stopped the QRS stayed at 0.11, then it came down to 0.10, 28 minutes later. The arrhythmia then broke into a normal sinus rhythm. The use of quinidine under this circumstance was quite important. It was important because other means would not control this patient and this patient was critically ill as far as myocardial disease is concerned. The effects of intravenous quinidine upon the heart were profound and the time of injection, the amount that was given, the time to stop the injection, and so on, demanded the watching of the patient under electrocardiographic control. Luckily enough patients of this sort are not too frequent. But when they do occur, proper control is extremely important.

I would now like to bring up the matter of atrial premature beats and the problem of control. Atrial premature beats occur frequently in many people and their control is not a matter of importance at all. In people who have serious heart disease or have progressive heart disease, they may set off atrial fibrillation. Therefore, depending upon their relationships and upon their symptomatology, it may be important to treat them. They require treatment in one patient; no treatment in another. I am not going into such factors as fatigue, smoking, caffeine drinks and that sort of thing. Tiredness and excessive fatigue are frequently important; and the general organization of the patient's activities may be important in control. If the premature beats are symptomatic, and if the outlined procedures do not control them, then the addition of quinidine in small doses, 0.2 gm. three or four times daily, is frequently all that is necessary.

Bigeminy due to ventricular premature beats is common in digitalis intoxication, and is usually easily recognized as due to such intoxication. If the patient has been on a low salt diet, has had mercurials, has developed anorexia, and difficulties in electrolyte balance, he may be depleted of potassium and may become intoxicated from digitalis at a level far below that necessary for adequate treatment. Here potassium salts are indicated and if one gives potassium salts, the evidences of digitalis intoxication may disappear and one can increase the amount of digitalis given. I bring this point up to show circumstance under which one must review what is going on with his patient and know the underlying circumstances. Potassium salts are useful at times in control of premature beats not due to digitalis intoxication.

In a patient with myocardial infarction, foci of ventricular premature beats may set off runs of ventricular tachycardia or ventricular fibrillation, and it is important to control them. Here again, the background or the cause, their nature, and their associations in the patients are extremely important items in what one does therapeutically.

Recently I saw a patient with an acute posterior myocardial infarction. There was evidence of incomplete AV block in this patient with so-called Wenckebach periods. This is not uncommon in posterior infarction because the right coronary artery usually supplies blood to the bundle of His. But this patient then went into ventricular tachycardia and quinidine controlled the arrhythmia for a while. Despite that fact, the ventricular tachycardia recurred. For this reason, the patient was tried on oral Pronestyl which did not do anything to the mechanism. Intravenous Pronestyl was tried successfully. The drug was then again given by mouth and continued by mouth in rather large doses. The patient has remained free from ventricular tachycardia. When to stop the drug in such a patient is a difficult matter to decide, and I think has to be carried out pretty much on an experimental basis.

In summary, I have made no point of trying to be complete about this discussion of arrhythmias. Several facts should be evident however. First, every arrhythmia is an individual problem: individual as far as the patient is concerned, the background disease in the patient, what the patient needs or does not need, and so on. Secondly, in arrhythmias with tachycardia, difficulty commonly is proportional to the speed of his heart, the heart rate. The most important thing, as far as an emergency is concerned, it to control the ventricular rate. If one controls the ventricular rate, one can be a little more leisurely about what he might do to stop the arrhythmia itself. This is true generally with tachycardia. (I am not talking about ventricular fibrillation at the present moment.) Under these circumstances then, one really requires procedures effective remarkably early in controlling the heart rate. The individuality of the circumstance, as far as the patient is concerned, and the control of the rate, are the two factors I want to stress. Thirdly, remember the development of gradual change in thought as far as the use of quinidine and procaine amide are concerned in the treatment of these patients. Fourthly, where one must use these rather seriously toxic drugs parenterally, the monitoring of the patient, as far as electrocardiographic tracings are concerned, is extremely important. Fifthly, the importance of the underlying disease and what it means cannot be overemphasized. One cannot be so impressed by the arrhythmia that he forgets or neglects an underlying coronary episode. One is easily trapped if one does not constantly keep this in mind. So each of these five items then, is an individual problem; the control of the rate and the emergency problems of control of the rate, the changing flavor of these drugs as far as their use is concerned, the monitoring of the patient, and the problem of the underlying disease, are the five points I am particularly interested in putting over. There are many things I have left unsaid. I make no brief for not saying them because the moderator has put the red light on and I am ready to stop.

1025 Walnut St.

PU-239, A Potent New Anticholinergic Agent

A Preliminary Study

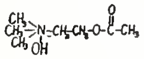
R. L. STERKEL, SR., M.D.; M. ARTHUR BRUCKER, S.S.M.,
AND
W. A. KNIGHT, JR., M.D., *St. Louis*

THE DEVELOPMENT of peptic ulcer depends upon some alteration in the normal relationship of hydrochloric acid secretion, gastric pepsin activity and mucosal antidigestive properties.[1] In gastric ulcer decreased tissue resistance is implicated, and although acid secretion is normal or less than normal, free hydrochloric acid invariably will be demonstrable with adequate stimulus.[2] Duodenal ulcer, on the other hand, is characterized by hypersecretion, and increased amounts of free hydrochloric acid can be assigned by means of properly conducted gastric analysis. That hypersecretion routinely occurs is clearly established by the quantitative expression of free acid in terms of output (volume X concentration) both in the fasting and post-stimulatory state.[3]

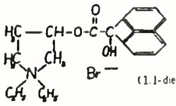
The important role of hydrochloric acid in the pathogenesis and course of peptic ulcer has prompted the therapeutic rationale of inhibiting digestive activity by intragastric neutralization and depression of parietal cell secretion.[4] The efficacy of reducing hydrogen ion concentration of gastric contents is directly proportional to the neutralizing propensity of a given compound and the period alloted for interaction of acid and alkali as determined by gastric emptying time.[5] Suppression of acid production is accomplished by compounds inhibiting the effect of acetylcholine at the neuro effector junction of post-ganglionic nerves. These drugs are effective, not only by decreasing the absolute amount of hydrochloric acid formed, but also by decreasing gastric motility which potentiates antacid activity. The most potent anticholinergic agents currently available are a group of compounds in whose chemical structure is found a quarternary amine in combination with an amino alcohol ester. Some of these compounds which have been evaluated clinically are termed commercially as Darstine, Elorine, Monodral, Pamine, Pro-Banthine and Tricyclamol.[6,7] The definite structural similarity between these compounds and acetylcholine has led to the postulation that these agents exert their action by entering into direct competition with acetylcholine for attachment at the site of the effector cell. The criteria for an ideal antisecretory drug is expressed as a safety administered compound that consistently inhibits the output of hydrochloric acid for long periods after oral ingestion without development of tolerance and with minimal or no side effects.[8]

The purpose of the present publication is to relate, in preliminary form, experience with the compound 1,1-diethyl-3-hydroxypyrrolidinium bromide (designated PU-239)* and its effect on gastric secretion in a small group of patients with duodenal ulcer. In Figure 1 the structural formula of the experimental compound is compared with acetylcholine and two clinically-proven, potent anticholinergic preparations.

ACETYLCHOLINE

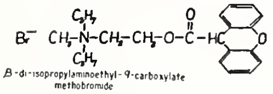


PU-239



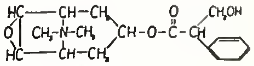
(1,1-diethyl-3-hydroxypyrrolidinium bromide)

PRO-BANTHINE



β-di-isopropylaminoethyl-9-carboxylate methobromide

PAMINE



epoxytropine tropate methybromide

MATERIALS AND METHODS

Approximately 50 patients with various gastrointestinal disorders have received PU-239 in dosage schedules varying from 10 to 30 mg. four times daily. The present report is an objective evaluation of this preparation as expressed by control and treated quantitative gastric secretion. In this group five males and three females with duodenal ulcer were submitted to gastric intubation to establish control levels. The technic utilized is as specified by Kirsner and Ford[9] with the exception of employing a new gastric tube designed to form a collecting loop in the gastric antrum.[10] The test doses varied in quantity from 10 to 40 mg. administered between one to two hours prior

---

Study was aided in part by a grant from Parke-Davis Pharmaceutical Company.

From the Gastroenterology Section, Department of Internal Medicine, St. Louis University School of Medicine.

* Product of Parke-Davis Laboratories.

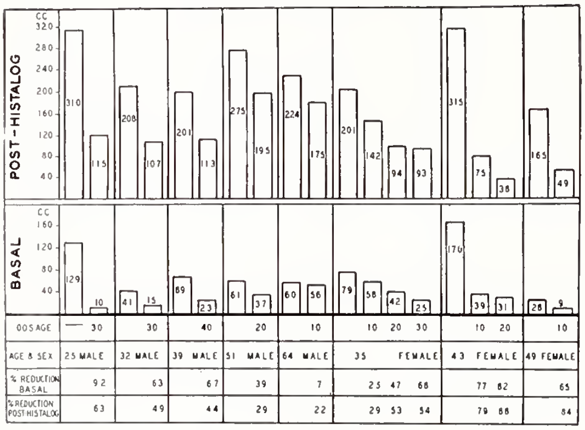
to introduction of the collecting vehicle. One hour basal and one hour post-histalog (0.5 mg./kg. of body weight) specimens were obtained. Histalog (3-beta aminoethyl pyrazole) was given specifically to demonstrate the effect of the test preparation against maximal stimulation of parietal cell function.

RESULTS

The inhibitory action of the specified amount of orally administered PU-239 on volume and output of free hydrochloric acid is shown in Figures 2 and 3. The volume of gastric secretion was uniformly decreased; the range of decrease was 7 to 92 per cent as compared with control levels in the basal or fasting state. Post-stimulatory volume was diminished from 22 to 88 per cent of control levels. Routinely greater decreases in volume were noted in the same individuals with increases in dosage.

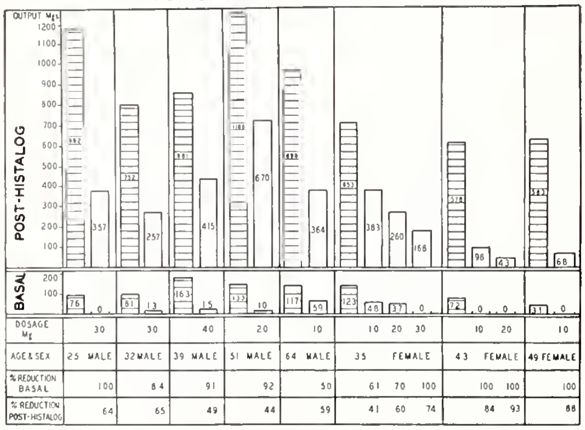
DUODENAL ULCER

PU-239 GASTRIC SECRETORY VOLUME



DUODENAL ULCER

PU-239 OUTPUT FREE HCL



Of greater importance from a clinical standpoint is the over-all effect on the output of free hydrochloric acid in the two test periods. Basal levels were decreased from 50 to 100 per cent. Five of eleven test procedures disclosed complete achlorhydria induced by the test compound. The post-stimulatory diminution varied from 41 to 93 per cent; in 8 of 11 tests post-stimulatory output was reduced by 50 per cent or more. No side effects were noted in single dosages of amounts of 30 mg. or less. When this quantity was exceeded, dryness of the mouth and some blurring of the vision became disturbing in certain individuals.

COMMENT

The role of anticholinergic drugs in the treatment of duodenal ulcer is clearly adjunctive in an attempt to reduce the absolute amount of acid production. Preliminary investigation indicates that diethyl hydroxypyrrolidinium bromide benzilate ester is an effective preparation when administered orally in dosages of 10 to 40 mg. This effect is achieved with minimal or no side effects. Further evaluation of this compound in a variety of gastrointestinal disorders is now in process and will subsequently be reported in more significant numbers. The fact that achlorhydria is not routinely produced confirms the editorial opinion that anticholinergic drugs do not obviate the necessity for the other therapeutic principles of management of duodenal ulcer; i.e., rest, diet, antacids and sedatives.

SUMMARY

1. Preliminary studies of the effect on gastric secretion of diethyl hydroxypyrrolidinium bromide are reported in patients with duodenal ulcer.

2. The output of free hydrochloric acid in the fasting state was decreased 50 to 100 per cent. Post-stimulatory (histalog) output was decreased from 41 to 93 per cent.

3. The data indicate that clinical application of the investigated compound is warranted as adjunctive treatment in duodenal ulcer.

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Fatty Liver, Pancreatic Fibrosis and Mild Diabetes Mellitus

Saint Louis University School of Medicine

Dr. William A. Knight, Jr.: Doctor Oppenheimer, will you introduce our guest for today?

Dr. Henry Oppenheimer: I think that we are fortunate today in having Doctor Richard Best, the co-discoverer of insulin, here from Toronto. I think a lesson can be learned from the fact that Doctor Best was only 22 when insulin was discovered. Instead of reclining on his laurels he has gone ahead and done fine work in the fields of metabolism dealing with liver injury, fatty liver, growth hormone, heparin and other fields of endeavor.

We also have with us Doctor William Olmsted who is Professor Emeritus at Washington University. What Doctor Best represents in the research aspects of diabetes, Doctor Olmsted represents in the clinical research of diabetes. He has done a large amount of investigation in this field and is known locally and nationally for his organizational and research activities. It is a great honor to have both of these gentlemen here with us today.

Dr. Douglas Bottomly: The patient being presented today has had five hospitalizations in the Saint Louis University Group of Hospitals. She was first seen in May, 1955 when, at the age of 67 years, she complained of the sudden onset, one month prior to that admission, of seven to twelve bulky, oily, yellow, foul-smelling stools per day. At that time she denied all abdominal pain, except for an approximately two month history of a burning epigastric distress which occurred between meals and which was relieved by food and antacids. Her past history was remarkable only insofar as she had had a suspension of her urinary bladder 22 years previously, bilateral varicose vein surgery 20 years previously, and an appendectomy five years before this admission.

Physical examination at the time of this first admission revealed an elderly woman who weighed 110 pounds and who showed evidence of rather striking recent weight loss. The blood pressure was 170 over 100 millimeters of mercury. The heart was slightly enlarged, a grade II out of VI aortic systolic murmur was heard and was transmitted to the neck vessels. The liver was palpable approximately 3 centimeters below the right costal margin and was believed to be moderately enlarged.

Laboratory data at that time revealed a normal hemogram and urinalysis except for a trace of albuminuria. Serum diatase values on five consecutive days ranged from 40 to 49 Somogyi Units. A glucose tolerance test revealed a mild diabetic curve. A starch tolerance test the following day showed blood sugar values considerably lower than those of the test with glucose the preceding day. Serum and urinary calcium values were within normal limits. B.S.P. retention was 15 per cent in 30 minutes. Gastrointestinal roentgenograms revealed what was considered to be an extrinsic filling defect of the third portion of the duodenum. Discharge diagnosis was pancreatic insufficiency, possibly due to carcinoma of the pancreas.

Her next admission was two weeks later for exploratory laparotomy. There was no essential change in the condition of the patient in the interim except for a decrease in the number and a change in the character of stools subsequent to therapy with pancreatic extract, bile salts and multi-vitamin capsules. Stool analysis on this admission revealed the total weight to be 184 gm. per day, total fat was 40 gm. per 24 hours. (Normal value for stool fat in our laboratory is 6 gm. per 24 hours when on a 75 gm. fat diet.) Neutral fat was the major constituent of the stool fat. Stool nitrogen was 8 gm. per 24 hours. (The normal value is 2 gm. nitrogen per 24 hours.)

Exploration of the abdomen revealed a large, soft liver, a pancreas which appeared chronically inflamed and edematous without evidence of tumor. Biopsy specimens were obtained from the pancreas, liver and jejunum. Figure 1 is a photomicrograph of the jejunal biopsy. The jejunum was considered histologically normal. Figure 2 is a photomicrograph of the pancreatic biopsy. This was interpreted as showing chronic pancreatitis with marked increase in fibrotic tissue and ductal dilatation. Figure 3 is a photomicrograph of the liver biopsy which shows a rather striking degree of fatty change.

These conferences are conducted each Friday morning in Miller Hall, Firmin Desloge Hospital, and are participated in by members of the Medical Staff and Basic Science Departments.

Recordings of these conferences are edited and abstracted by William A. Knight, Jr., M.D., and Joseph B. Vacca, M.D.

She was admitted again four months later, in October of 1955, for re-evaluation. It was noted at this time that on the previous therapy she had regained her original weight (approximately 130 pounds) and was having only two stools per day. However, hepatomegaly was still present. Serum diastase values were again low, ranging from 40 to 66 units. Glucose and starch tolerance tests were repeated and were essentially as before. Roentgenograms at that time were interpreted as showing rather generalized bony demineralization.

Six months later, in April of 1956, she was admitted to Firmin Desloge Hospital for sudden, severe pain in the thoracolumbar region. Roentgenograms demonstrated collapse of thoracic vertebrae 7, 8, 9 and 12, with marked kyphosis and moderate osteoporosis. Serum calcium value was 5.3 mEq. per cent, serum phosphorus was 1.1 mEq. per cent. She was markedly improved following this admission on testosterone proprionate and vitamin D therapy.

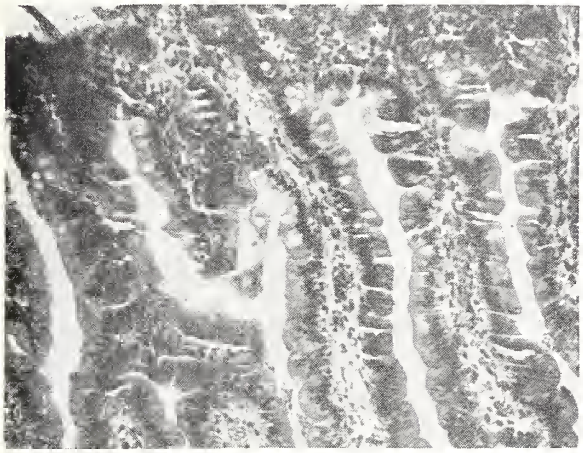

Fig. 1. Photomicrograph of jejunal biopsy in patient presented.

Her last admission was in April of this year at which time it was noted that she was maintaining her normal weight and no longer had symptoms referrable to the skeletal system. Serum diastase values were again below 60 units on several occasions. Urinary diastase values were low on two occasions. Duodenal drainage with Secretin stimulation was performed on this admission and the results can be seen in Table 1. It can be seen that the volume, total amount of bicarbonate, and bicarbonate concentration were low in all the specimens before and after stimulation. Serum diastase was low and remained low during the test period with Secretin stimulation.

DOCTOR KNIGHT: We have been quite interested for a number of years in a group of patients who have had diabetes for a number of years and who have suggestive evidence of pancreatic acinar dysfunction manifest by low serum diastase values, occasionally by steatorrhea, and in some cases by abnormal duodenal drainage. In trying to review this subject in the literature we find there is little written about this association. In the book by Shields Warren, "The Pathology of Diabetes Mellitus," it is mentioned that there are significant numbers of patients with diabetes mellitus who have fibrosis of the pancreas. Dreiling and Janowitz state that they have done duodenal drainage studies in some patients with diabetes mellitus but have found no evidence of pancreatic acinar dysfunction. However, we feel that there are a significant number of diabetic patients who do demonstrate pancreatic acinar dysfunction in addition to pancreatic islet cell disease. The exact etiology of the histologic changes and functional inadequacy of the pancreatic acinar tissue is not clear. We wonder whether this is due to primary disease of the pancreas with secondary involve-

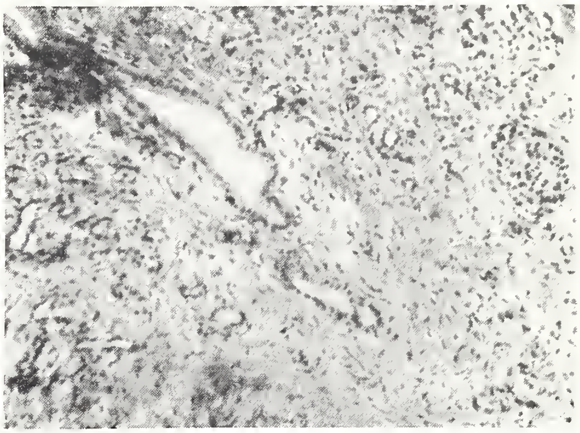

Fig. 2. Photomicrograph of pancreatic biopsy in patient presented.

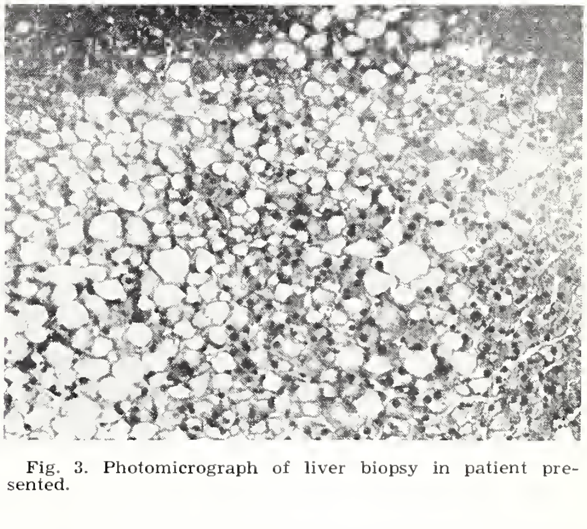

Fig. 3. Photomicrograph of liver biopsy in patient presented.

ment of islet cells, whether it is due to amino acid or protein deficiency which leads to secondary degeneration of the pancreatic acinar and islet tissue, or whether it is a result of nutritional impairment secondary to the diabetes mellitus.

Doctor Best, we have presented a case with fatty liver, chronic fibrosing pancreatitis, and islet cell dysfunction as manifest by a mild diabetic state. We now turn the discussion over to you to discuss any of the facets involved. We would like your opinion as to which came first, the pancreatic acinar dysfunction or the islet cell dysfunction.

DR. RICHARD BEST: This is a fine opportunity for a physiologist. I wish to thank you for presenting this case so well. I really do not need a case, though. I was appointed physician-in-chief of the Atlantic City General Hospital now on two occasions and they startled me in my first clinic by wheeling in a case. I did not know what do with it; we got along nicely during the rest of my clinics because we had no cases.

TABLE 1

DUODENAL DRAINAGE

1	*Vol. cc./Kg./2 Hr.*	*Max. HCO$_3$ Conc. Meq./L.*	*Am't. HCO$_3$ Meq./Kg./2 Hr.*	*Diastase Somogyi Units/Kg./2 Hr.*	*Serum Diastase Response to Secretin*
NORMAL*	1.35 to 6.99	47.9 to 146.3	.073 to .561	254 to 11,238	Less Than 56
PATIENT PRESENTED (C. N.)	1.27	37.0	0.04	311	0

* All normal values calculated on basis of mean ±2 S.D.

I can remember once in Minneapolis when my friend, Cecil Watson, was discussing a case in which he had 20 liver function tests all described on the blackboard. Having been chairman of the Liver Injury Committee at the Macy Foundation for a number of years I had heard all of these tests discussed, but I had to get up and, somewhat to Doctor Watson's disappointment, say the only liver function test which I understood was the amount of sugar in the urine. I knew quite a bit about what had been written about the liver function tests but I did not understand them.

That is the only useful way of discussing many of the points you have raised. Let's take them one at a time and see how far we get.

In the production of diabetes of 1899 von Mering and Minkowski removed the pancreas from dogs. As you know, in addition to all the classical findings of diabetes, they got a big fatty liver in those dogs. The liver fat was above 30 per cent of the wet weight of the liver. Thus, the big, yellow fatty liver was one of the signs of the diabetic state. In 1921, when we had insulin available, one of the first things we did was to treat diabetic dogs and look for the change in liver fat. It goes right back to normal. The yellow liver gets small again and the fat content decreases until it comes right back to normal. You can prove that just as easily and just as dramatically as the ability of the liver to form glycogen under the influence of insulin.

There has not been a great deal of good work done on the source of the fat in the diabetic fatty liver, but I imagine that since you get a fatty liver even in a fasting diabetic dog, it is pretty well accepted that the liver fat comes from the depots. One can investigate the source of the liver fat by earmarking the depot fat and then doing various experiments. For instance, in starvation, which is similar to diabetes in many respects such as the ketosis, fatty liver, decreased carbohydrate tolerance, and a number of other signs, the fatty liver is due to mobilization of depot fat to the liver. Then one can improve on the starvation fatty liver by giving pituitary extract containing growth hormones. With growth hormones one can mobilize depot fat tremendously fast to the liver. One can double liver fat content in two hours in a fasting animal by giving growth hormones. It has been shown, by labeling the fat in the depots, that all the fat going to the liver in these situations, that is, after starvation and after giving growth hormone, come from the depots. I think the fat in the liver in diabetes largely comes from the depots, although it probably also comes in part from the diet.

One of the main actions of insulin is to make fat in the liver. This is confusing now. One of the main actions of insulin is to make fat in the liver! A large proportion of the sugar goes to fat under the influence of insulin and yet, in the absence of insulin, the liver gets fatty. Take insulin away and one stops the production of fat from the sugar in the liver but the rush of depot fat to the liver makes the liver fatty. This can be confusing. I believe that it is pretty well established that the fat in the fatty liver in diabetes is principally from the depots, and one can stop or decrease fatty liver deposition by the use of insulin alone. One of the nicest ways of doing this would be in an alloxan diabetic dog because there one leaves the external secretion intact and the insulin deficiency is the only one present. The liver will become big and yellow and the insulin given will decrease the size down to normal.

If one takes out the pancreas and gets a fatty liver one has to give the external secretions of the pancreas in order to do a clear-cut experiment. There, when one returns insulin to the animal the fatty liver will decrease in size and the liver fat will return to normal. So the main internal secretion of the pancreas, insulin, (I am not so sure glucagon is an internal secretion of the pancreas) does control the mobilization of liver fat in a dramatic way. This can be shown nicely in class experiments. If one makes the animal diabetic by whatever means is chosen, depot fat will rush to the liver and there will be excess ketosis and the development of a fatty liver. One of the first things that we did when we had insulin available was to study ketonuria and one or two units of insulin in a large dog would abolish ketonuria for 18 hours. This is one of the most dramatic experiments I have ever seen, demonstrating that ketonuria is secondary to the depot fat coming to the liver because most of the ketone bodies are made in liver tissue.

In depancreatized dogs, and I assume the same is true in human beings, if they are given enough insulin to keep them essentially sugar-free, but are not given any digestive enzymes, they also get a liver damage characterized by a huge amount of fat which has nothing whatever to do with insulin deficiency and no amount of insulin will cause any decrease in the amount of fat in that liver. But if one returns the pancreatic enzymes or a pancreatic extract the fat does come back quickly to normal. This fatty liver is quite unrelated to the fatty liver of diabetic fatty livers.

There are at least two possible explanations that we know of now for the cure of the fatty liver by giving pancreatic substances in the form of enzymes or extract. One is that the pancreas preparation given contains lecithin or free choline. If one gave lecithin, which is rapidly broken down to choline, I think even in the absence of the pancreas, we know that choline, present either in the free form or as a breakdown from lecithin in the pancreatic substance given, is one of prime lipotrophic substances which enhance the decrease of fat in the fatty liver. In the depancreatized dog given sufficient quantities of insulin, one of the major factors in the disappearance of fat in the fatty liver is the administration of choline, naturally. I can remember a symposium at Atlantic City where a lot of good effects were attributed to choline, and I was asked to speak and I was quite sure that the only thing choline cures is choline deficiency. If one does not have a choline deficiency choline will not cure anything.

Thus, one mechanism is the presence of free choline. A second mechanism would be the presence of enzymes in this diet which would cause the breakdown of proteins and the liberation of methionine from the protein. You can cure the fatty liver of choline deficiency in depancreatized dogs just by giving the pure enzyme preparation, providing the diet contains sources of methionine. Thus, you can see we have to distinguish the types of fatty livers in pancreatic disease. Insulin will "protect," if you wish, the liver by keeping it from getting too fatty because excessive fat leads to damage; and the external secretion of the pancreas protects the liver by making available methionine or even making available choline.

In speaking of fatty livers, one must consider the various toxic factors which may lead to fatty livers and there are legions of them. Many infective diseases, many parasites, certainly all sorts of industrial poisons, and one can list these by the hundreds, cause an interference with liver function and the accumulation of fat. I think that the slight accumulation of fat in the liver is one of the early signs of deviation from normal function of the liver status.

Actually one can increase the fat content of the livers of normal animals by merely increasing the fat content of the diet, putting a heavier strain on the liver. We started out by making the liver of rats fatty by giving them a diet deficient in choline. On a diet containing 30 or 40 per cent fat the livers of these animals got fatty and this was cured first by the use of purified lecithin, also by choline or betaine and later by methionine.

There is another form of fatty liver that I mention just in passing. This is a mild fatty liver that occurs in protein deficiency which is not related to choline and methionine. The liver does not get very fatty, but one must have a balance between essential amino acids in the diet or one gets a type of fatty liver with a little bit different distribution of fat. This is neither associated with insulin deficiency or choline deficiency or the presence of toxic factors. It just seems to be a dysfunction of liver cells due to the lack of a balance of amino acids. Now this type of fatty liver has been studied recently by Popper and others. The liver fat does not go to high levels and I have never seen any evidence of cirrhosis in this condition; however, one can produce any degree of this that he likes by the absence of choline.

I think in the old days they used to have cirrhotic livers in diabetic patients. We should not get them nowadays. There is also some evidence in past years of the appearance of fatty liver in pernicious anemia before the knowledge of liver extract. At least this was in the older literature. Whether the cirrhosis was just due to the accumulation of liver fat, I am not sure.

One can get a beautiful cirrhosis in animals by the use of the choline deficient diet. One can reverse this process of cirrhosis by the use of choline if the process has not gone too far before it is utilized. I am sure that if it goes beyond a certain stage it would be extremely difficult to reverse by anything.

I have not seen a lot of clinical diabetes. We had some in our own family and that is how I became interested in the research in carbohydrate metabolism. I was telling the group at Washington University yesterday that I was exposed to clinical medicine at an early age. I was given anesthetics for my father when I was 12 years old; he was a general practioner and let me pour on the ether. I subsequently discovered that he sometimes let the patients do it themselves—this sort of deflated me.

There were two patients with diabetes with whom I had quite a lot to do. One was the first patient treated with insulin. There is a story about that patient that is good for junior students. A graduating student saw the first dose of insulin given to that patient (whose name was Leonard Thompson). This student got much interested in the response of this first diabetic patient. When he graduated he spent two years nursing diabetic dogs, learning all about them in physiology. He went to the Mayo Clinic and, with Russel Wild, he discovered the first case of hyperinsulinism. He was later appointed senior physician in medicine at Lahey Clinic, and later became the first editor of the journal *Diabetes* and president of the American Diabetes Association. If he had not taken an interest in Leonard Thompson, he would probably have been just as successful but his career would have followed a different trend. This student's name was Frank Allen and his career really did follow that sequence of events. He became interested in that first case and followed it and this shaped his entire career.

Leonard Thompson bought a motorcycle as soon as he got better and had a number of accidents on the motorcycle; in one he was exposed for some hours in a partially conscious state and he got pneumonia. This was in the days before antibiotics and he died, some 12 years after his first injection of insulin. His pancreas was fibrotic and had not only few islets but the acinar tissue was extremely reduced too. We did not do insulin assays on the pancreas in those days. Joe Gilchrist was our first doctor to be treated with insulin and our third patient. He was a great friend of Fred Banting and myself, and really an extremist with diabetes. I wrote my thesis on Gilchrist's rise in respiratory quotient after insulin. I did a few dogs, too, but it was much more interesting working on this young doctor who was pretty well along with diabetes. He lived for 32 years and when he died I analyzed his pancreas for insulin. He had nine units left and should have had about 200. He had a lot of fibrous tissue in his pancreas and the acinar tissue was deficient as well as the number of islets. I know that this is not the common finding but it was interesting that two of the earliest cases that we studied had defects in the acinar tissue as well as in the islet function.

When one ties off the pancreatic ducts in experimental dogs one has to look around to make sure he has gotten all the ducts or he does not find much joy in his experiment because sometimes there are three ducts and one must get them all. The literature is confused by people who have not tied off all of the pancreatic ducts. After tying off these ducts one gets a degeneration of the acinar tissue and the islets look healthy for awhile. But if one leaves those dogs, as we did and as others have also done, fibrous tissue eventually interferes with islet function and one gets diabetes also. Whether one gets diabetes all the time I do not know, but I do know that one gets it sometimes just from tying the pancreatic duct. First of all one gets a dramatic effect on acinar tissue and then, probably due to interference with blood supply by fibrous tissue or perhaps some other mechanism, one gets interference with islet cells that goes on to diabetes.

Doctor Knight: What is the factor in the mobilization of fat from the depots to the liver in insulin deficiency? In other words, what mobilizes or carries the fat from the depots to the liver. The fat has to be transported from the depots to the liver.

Doctor Best: This also occurs in starvation, of course, but there one has an intact functioning pituitary. One can increase the mobilization ten times over by giving excess pituitary hormones (growth hormone). It has a specific function of breaking down depot fats and mobilizing it to the liver. Two real functions of the growth hormone of the pituitary that I know of (it may have others) are to: (1) liberate insulin, and (2) to mobilize depot fat. One can label depot fat and give growth hormones and demonstrate a striking increase of mobilization of depot fat to the liver. I think that one can have mobilization of fat any time it is needed without the influence of the anterior pituitary because in Houssay animals, that is, without either the pancreas or the pituitary, there is a slight or mild diabetes and these animals can lose depot fat. If one gives these animals growth hormones they become intensely diabetic and lose depot fat rapidly. One can do something similar with thyroid, too, by increasing the demands for fat and can lower depot fat. Diabetes can be produced also, with thyroid in a partially depancreatized animal.

The most dramatic fat mobilizing factor is growth hormone. The most dramatic factor in putting fat back into the depots is insulin. Normally these factors are balanced. Insulin makes depot fat from carbohydrate. Fat is no good to the depots. Growth hormone mobilizes it and makes it available either directly or for the production of ketone bodies. I am sure the whole story is much more complicated even than that.

Physiologists take the body apart and set up unphysiologic experiments to learn things, whereas you get the same thing by accident in your clinical cases. One reason physiologists set up these situations, such as depancreatized animals or animals with the pancreatic ducts tied, is because one sees similar things in his clinical cases.

Dr. G. O. Broun, Sr.: Doctor Best, in regard to the incidence of atherosclerosis in diabetes mellitus, is that in any way tied up with fatty liver in fat mobilization that you have been discussing?

Doctor Best: I do not really know, Doctor Broun. One would have thought that insulin would have brought about a decrease in the amount of atherosclerosis in diabetes but apparently this does not seem to be completely true. The experimental literature is confused. There are two or three papers that seem to me to be perhaps misinterpreted in regard to the subject. One series of papers in particular, by Doctor McDuff who was pathologist at McGill University, say diabetic patients have more atherosclerosis while they have less insulin, and even if given insulin the therapy is not perfect. There is no perfect replacement therapy for the diabetic patient. The only way this can be accomplished is by continuous intravenous infusion of insulin with the adjustment of a little stopcock after each meal. One is, however, never able to return the diabetic patient to a perfect physiologic state. In diabetic rabbits, for example, given cholesterol in an attempt to produce atherosclerosis, they do not get as much atherosclerosis if one does not treat them as if he gives them insulin and does treat them. I always thought that this was due to the fact that diabetic animals were losing a lot of calories. It is awfully difficult to bring out some lesions, at least unless you have a good caloric intake, for example; to go to an extreme, there are no vitamin deficiencies in starvation, as far as I know. You have to eat to get a vitamin deficiency. Wendell Griffin's little rats got kidney lesions; if he starved them they would not get the kidney lesions. If he gave them 2 or 3 grams of food a day, they would get kidney lesions. The more they ate the more the lesions and the sooner they died. One has to eat to get a lesion of deficiency. I do not know whether this same phenomenon plays a part in these experiments in which the incidence of atherosclerosis of cholesterol fed diabetic rabbits was decreased by withholding insulin.

I cannot explain this effect one sees in diabetic patients of the increased incidence of atherosclerosis. There is a lot of work going on at the present time in experimental atherosclerosis. As far as choline goes, it is the kidney lesion produced that I think plays a large role in the vascular phenomenon in choline deficiency. The rat used to be very resistant to atherosclerosis but now a high cholesterol diet and a little cholic acid in it and attractive condiments added can make the rabbit eat more of a bad diet and one can produce a terrific atherosclerosis quickly. Doctor Hartroft, who was a colleague and pupil of mine for eight years, now at Washington University, as you know, has published a paper recently reporting that he was able to produce a high incidence of coronary atherosclerosis in rats on an atherogenic diet. It is an unphysiologic experiment, and with a high cholesterol diet. I suppose it needs some refinements and over a longer period of time perhaps another diet may be developed to bring out the same thing.

Doctor Broun: Doctor Best, what is your feeling about the place of inisotol in the treatment of fatty liver?

Doctor Best: I do not think it has much of a place experimentally. The lipotrophic effect of inisotol, while apparent to a small degree on a low fat diet, is lost when the animal is placed on a high fat diet. McHenry was interested in this and felt that inisotol was specific for the cholesterol type of fatty liver. There is another factor in protein deficiency; where one gets a fatty liver one also gets acinar lesions. We see them in rats when trying to produce an experimental situation similar to Kwashiorkor. On this low protein diet you not only get a fatty liver but you get shrinkage and definite signs of loss of activity of the acinar cells. While I think protein is one of the most important things in the maintenance of normal structure and function of the pancreas, I think the methionine and choline are important in coming to this in several phases of this particular problem. Every time you give an adequate amount of protein you are in essence giving methionine. And every time you give methionine some of its goes to choline. As far as I know one can never give methionine without at least part of it going to choline.

Doctor Knight: Doctor Best, would you want to venture an opinion as to which situation came first in this woman, the diabetes or the acinar disease?

Doctor Best: I would not want to venture a guess. In my dogs I always knew what caused the disturbance.

Doctor Knight: I was intrigued by your discussion about the protein and amino acid deficiencies causing changes in the pancreas. I wonder if you know of any situations experimentally or clinically in which the loss of amino acids, perhaps in the urine rather than due to a dietary lack, has been know to produce pancreatic fibrosis or islet cell degeneration.

Doctor Best: I think that is a real possibility and if any one of them were lacking you might get liver damage and you might also get acinar damage, although I do not think this has been worked out in any great detail with specific amino

(Continued on page 606)

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Fatty Liver

(Continued from page 603)

acids in reference to the pancreas. In regard to the liver, some of this has been worked out.

I have a Doctor Rappaport working with me now and I always like to quote his accomplishments to show what a person can do if he is willing to work hard. He had been in a concentration camp and when he first came to us his initial experiment was to cut tips off the auricular appendage and to tuck them into the left and right sides of the heart and shut both great valves of the heart, having heparinized the dogs until they healed. If you can do that and have your dogs live, you are a good experimental surgeon. This operation has not been used but he asks this question: What are these things hanging there for if they are not to be tucked into the heart itself?

He next worked with Doctor Markovitz. They showed that giving penicillin prevented the death of dogs after one has tied off all their arterial blood flow to the liver. Ordinarily the dogs get an infection in their liver after the arterial supply is tied off and they proved that if given penicillin they do not die. I believe this experiment had some effect on clinical medicine.

Next he produced experimental hepatic coma satisfactorily for the first time by the judicial production of anoxia in the liver. The United States Army became interested in this and because they were seeing a lot of hepatic coma in the post-hepatitic patients they asked Doctor Rappaport to come to the United States. However, the Federal Bureau of Investigation would not let him in although the Royal Canadian Police had already allowed him to come into Canada. So the United States Army came to Toronto to see Doctor Rappaport, which I thought was rather interesting.

Doctor Rappaport has recently been working with Doctor Nisely. He now has a transillumination technic. With this technic, after a few hours of choline deficiency, he can actually see the droplets of fat settling out around the central vein, which is at the periphery of the hepatic unit as it is conceived of by Doctor Rappaport in contrast to other conceptions of the hepatic lobule. According to his theory the central vein should have never been called the central vein since it lies at the periphery of the hepatic lobule. It is quite impressive to see after just a few hours of choline deficiency this fatty deposition in the liver.

It is interesting that he was a thorough-going clinical surgeon before he came to us, but apparently the meditative life in the concentration camp turned him to higher spheres and he entered the research field of physiology.

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Special Article

MSMA 100th Annual Session

Summary Report

TOM R. O'BRIEN, *St. Louis*

THERE IS A GENERAL feeling that the recent 100th Annual Session of the Missouri State Medical Association was an outstanding one in keeping with its centennial nature.

Attendance at the convention April 13 to 16 in St. Louis was good—about 1,200 physicians, Auxiliary members, medical technologists and exhibitors were registered.

The scientific sessions, which featured for the second year a series of special instruction courses conducted by Missouri doctors—along with general scientific talks by out-of-state authorities, drew representative audiences of interested physicians. The consensus was "good show."

The annual banquet, addressed by Dr. Gunnar Gundersen, president-elect of the American Medical Association, was a sellout. We regret that we were unable to fill all the requests for tickets—especially since the musical medical revue put on expertly and hilariously by Greene County doctors scored an outstanding hit at the dinner.

HOUSE OF DELEGATES KEYNOTE

The keynote of the three day meeting of the House of Delegates, was sounded by the new President, Dr. W. F. Francka of Hannibal. At its opening session, he stated quite frankly that there were "serious and important differences of view within our membership" on a number of problems affecting physicians and the people they serve. "Every view point should be brought out in vigorous debate—free of personalities," he said. And, after policy decisions had been hammered out through the democratic processes of the House, the Association's membership should unite in support of them, he urged.

Many viewpoints on the vital issues were expressed by the delegates and were considered in the reference committees and on the floor of the House. The debate was indeed vigorous—both in the committees and on the floor.

Following are 10 of the more important actions taken by the House during its three days of deliberations.

VENDOR PROGRAM

The MSMA Council asked the House to determine what policy should be followed by the Association concerning vendor medical care legislation that is expected to be introduced in the 1959 Missouri General Assembly. Such legislation would call for appropriation of state matching funds under a federal program in which payments may be made direct to doctors, hospitals, nursing homes, nurses, dentists and druggists for services to state public assistance recipients who are past 65 years of age, or totally and permanently disabled or blind, or dependent children or the guardians of dependent children.

The House of Delegates adopted a resolution setting these four MSMA policies regarding a vendor program:

1. The Association adopts a policy of watchful neutrality toward the legislation as a whole.
2. Physicians should not be paid for their services under a vendor program.
3. The Council is instructed to act in the best interest of the Association if and when enabling legislation for a vendor program is introduced in the Missouri Legislature.
4. Any vendor legislation should make provision for appointment of an MSMA medical advisory committee to consult with and advise the state agency designated to administer such a program on all matters affecting any phase of medical care connected with the program.

MEDICARE PROGRAM

In December 1956, the Missouri State Medical Association entered for the first time into a contract with the U. S. Department of Defense for the purpose of providing care for dependents of active duty personnel of the uniformed services. MSMA is the contracting agency in Missouri for matters of policy and control. The two Blue Shield plans of the state serve as fiscal administrators under the program. It was reported to the House of Delegates that during 1957, a total of $543,797 had been paid in 7,375 cases to Missouri doctors for services under the Medicare program.

With the present contract expiring next September 30, the MSMA Council asked the House of Delegates for a directive on whether or not the Association should negotiate a new contract.

The House adopted the following resolution: "That the Council be authoried and directed to

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This release was sent to members early in May for those who may wish reference on the session prior to the publishing of the minutes in the July issue of MISSOURI MEDICINE.

negotiate a new Medicare contract with the Department of Defense to continue the program beyond the expiration of our present contract September 30, 1958, and recommend continuation of a published fee schedule."

SINGLE LICENSE LEGISLATION

For several years the Association has been working for the passage of legislation that—in the best interests of the public and the medical profession—would set a single and high standard of competence for persons who shall in the future be licensed as physicians and surgeons. Committees of the MSMA Council and committees of the Missouri Osteopathic Association have been working together during that period toward that common goal.

The House at its recently-completed session approved a preliminary draft of new single license legislation and directed the MSMA officers, Council and staff to perfect with representatives of the Missouri Osteopathic Association a final draft to be sponsored by both groups in the 1959 Missouri Legislature.

Main provisions of the proposed legislation are:

1. Creation of a State Board of Registration for the Healing Arts composed of five doctors of medicine and two doctors of osteopathy (the ratio of the numbers of both groups of practitioners in Missouri).
2. This board is to examine, license and regulate all qualified graduates of medical schools and osteopathic schools.
3. One license, that of physician and surgeon, is to be issued by the board.
4. Each license is to show whether the licensee is an M.D. or a D.O.
5. Each licensee is to designate in all public listings whether he is an M.D. or a D.O.
6. A "grandfather" clause is provided for the licensing of present medical and osteopathic physicians.
7. While the act does not apply to chiropractors licensed and lawfully practicing under the provisions of the state chiropractic act, it authorizes the State Board of Registration for the Healing Arts, among other things, to institute injunctive action against any persons treating the sick in violation of the terms of the act.

MISSOURI MEDICAL SERVICE

Missouri Medical Service is the St. Louis Blue Shield Plan that since its foundation in 1944, has been sponsored by the Missouri State Medical Association. It serves 84 of the state's 114 counties and the City of St. Louis. Development of new programs for the benefit of the public were reported to the House of Delegates. These include:

1. Action to make non-group membership in the plan available to everyone regardless of age (formerly, although membership was available to anyone joining a group, there was no provision for people to join MMS on an individual non-group basis after age 60).
2. Establishment last February of six new benefits for present members, with no increase in dues.
3. A program now under development for catastrophic (major medical) coverage, with co-insurance and deductible features.
4. A program now under development for a new "selective" basic indemnity coverage, to allow flexibility in groups' choosing the extent of benefits and dues they desire.

The House adopted a resolution that "The Missouri State Medical Association retain sponsorship of Missouri Medical Service and only local medical societies in the area served by the plan shall be consulted in its management."

STUDY OF COUNCILOR DISTRICTS

The Council reported to the House that there has been no change in the arrangement of the 10 Councilor Districts of the Association since 1937. It stated that during this period population and other conditions throughout the state have undergone significant changes and that there have been requests for changes in the Councilor Districts. It recommended a review of the present arrangement.

The House adopted the following resolution: "That the President of the Association appoint a committee of 10 made up of a representative of each of the Councilor Districts to study the adequacy of the present district set-up and make a report and recommendations to the 1959 session of the House of Delegates. That the said committee, if appointed, be aware that redistribution of delegates to the MSMA Annual Convention may involve more than redistricting of the state, and should be so regarded."

ADDITION TO RESERVE FUND

The Council reported that there were $33,538 unexpended funds from the 1957 fiscal year operations of the Missouri State Medical Association. It pointed out that the addition of this sum to the Association's reserve fund would bring the reserve to $129,147, which would be approaching a goal long set by the Association—to have a reserve equal to approximately one year's operating expense. The House, accordingly, voted to add the unexpended sum to the reserve fund.

FORAND BILL

Pending in Congress is House Resolution 9467, introduced by Congressman Forand of Rhode Island, to provide Federal government-paid hospitalization and surgery to all persons—regardless of their economic and employment status—who are eligible for the old age and survivors insurance benefits of the Social Security Act. This proposed legislation would impose alarming increases in payroll taxes paid by employee and employer in order to pay for the program.

In the field of solving the problem of the health care of the aged, it is appropriate to point out here that the American Medical Association—along with the American Hospital Association, the American Nursing Home Association and the American Dental Association—about a month ago announced the establishment of the Joint Council to Improve the Health Care of the Aged. Objectives of the council are to identify and analyze the health needs of the aged, to appraise available health resources for the aged, and to develop programs to foster the best possible health care for the aged regardless of their economic status.

The MSMA House of Delegates authorized the officers, Council and staff of the Association to "take all continuing appropriate actions necessary to aid in opposition to the Forand bill and all similar measures in Congress."

HEALTH INSURANCE FORMS

The Council reported it had made a study of the possibility of standardization of the health insurance reporting forms that are filled out by physicians. It said there would be difficulty in devising a single form that would cover every type of health insurance policy and be acceptable to every firm.

The House voted to endorse six standardized attending physicians forms designed by the Health Insurance Council and approved by the American Medical Association.

VETERANS ADMINISTRATION RESOLUTIONS

The House adopted two resolutions opposing the admission of patients with non-service connected disabilities into Veterans Administration Hospitals. Both resolutions urged Congressional action. One of them also called for organized medicine in Missouri to offer to provide the Veterans Administration with attending and consultant staffs, provided admission to the hospitals is restricted to patients with service-connected disabilities.

MENTAL HEALTH PROGRAM

A resolution was adopted by the House praising the appointment by the Missouri State Mental Health Commission of Dr. Addison M. Duval of Washington, D. C., as director of the state's new mental health program. The resolution further stated that the Governor and legislators of Missouri should "be advised that there is still urgent need for more adequate appropriations for our state mental health hospitals and training schools, funds for professional employees and trained attendants, funds for rebuilding and bed expansion and funds for full equipment for the most modern and effective treatment of those mentally-ill patients committed to the charge of the State of Missouri."

ELECTION OF OFFICERS

Dr. Ralph Perry, Kansas City, was elected President-Elect of the Missouri State Medical Association; he will take office in April, 1959. Drs. James C. Cope, Columbia; Milton T. English, Jr., Kirksville, and W. O. Finney, Chaffee, were elected Vice-Presidents. Dr. John I. Matthews, Jefferson City, was named Secretary and Dr. R. O. Muether, St. Louis, was chosen Treasurer.

Dr. Oscar P. Hampton, Jr., of St. Louis County, was elected Speaker of the House of Delegates and Dr. William C. Mixson, Kansas City, was named Vice-Speaker.

Drs. Durward G. Hall, Springfield, and H. E. Petersen, St. Joseph, were reelected delegates to the American Medical Association; Drs. Guy N. Magness, St. Louis County, and J. Loren Washburn, Versailles, were reelected alternate delegates to the AMA.

Two new members of the MSMA Council were elected. They are Drs. Leonard T. Furlow, St. Louis, and Kenneth C. Hollweg, Kansas City. Reelected as Councilors were: Drs. Donald M. Dowell, Chillicothe; Byron M. Stuart, Boonville, and J. H. Summers, Lebanon.

The Council elected Dr. Summers as its chairman and Dr. Dowell as its vice-chairman.

Chiros Test Kansas Practice Act

The Kansas State Association of Chiropractors has challenged the constitutionality of the new Kansas medical practices act. The act covering all phases of medicine just went into effect.

The petition was filed in the Supreme Court by William A. Smith, former chief justice of the court. He contends that the new law constitutes "an invasion of personal rights" guaranteed by the United States and the Kansas constitution. No date was set for a hearing.

Smith's petition asserted that a controversy exists between chiropractors on one hand and medical doctors and osteopaths on the other, as to the scope of practice of the chiropractors.

The association contends its practitioners study an entirely different method and cure by making adjustments to the spinal column and nerves, and do not go into the basic sciences as required by the new law.

It contended the act is invalid because it did not set up definite standards for the examinations to be held by the healing arts board.

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President's Page

Normally I am not one to reminisce too much, but I do think our recent 100th Annual Session in St. Louis deserves a few comments.

It may have been a painful one politically for some of the brethren. However, it showed there are honest differences of opinion among the physicians of Missouri. Differences that had to be faced, and will have to be faced every time we get together.

They do not involve the technic of how to practice medicine, but how to grapple with the economic and socialistic trends that the medical profession must cope with. Physicians can no longer keep their heads buried in their work. They must come up for air ever so often and reevaluate what they see around them.

Unfortunately, there is no one clear path that we should follow in making these decisions. We must realize we are living in changing times. We have to chart our course through the obstacles ahead so as to insure the best possible medical care for our patients. Many doctors sincerely feel we can best do this by just saying "No" to all programs presented by government. Others feel it is better to evaluate these programs, such as the Vendor program and the Forand bill, and then arrive at a considered judgment concerning them.

I do not intend to review here how these important decisions came out because Tom O'Brien, our executive secretary, reports fully on them in a special article in this issue. All I want to do is comment that the recent session showed that doctors are not afraid to face up to the political and economic problems of life and make a decision.

The newspapers did a fine job of covering our session. It let the people of Missouri —our patients—see how we settle our problems. The articles may have been searching, but they seemed to me to be extremely objective.

One editorial in particular, commenting on need of the Vendor program, made me especially proud of how Missouri physicians had once again demonstrated they do not want to be paid for taking care of the needy. The editorial in the *Kansas City Star* said:

"The indigent who are ill—the ones who need help most—could receive aid. . . . Apparently a majority of Missouri's doctors agree. A poll of the members of the Missouri State Medical Association brought a 3 to 1 vote in favor or a neutral stand if the bill is introduced in the 1959 Legislature."

This Vendor program, of course, is just one of the important things facing the MSMA. A few of the others on the state level include: renegotiation of Medicare, single licensure and broadening Blue Shield coverages.

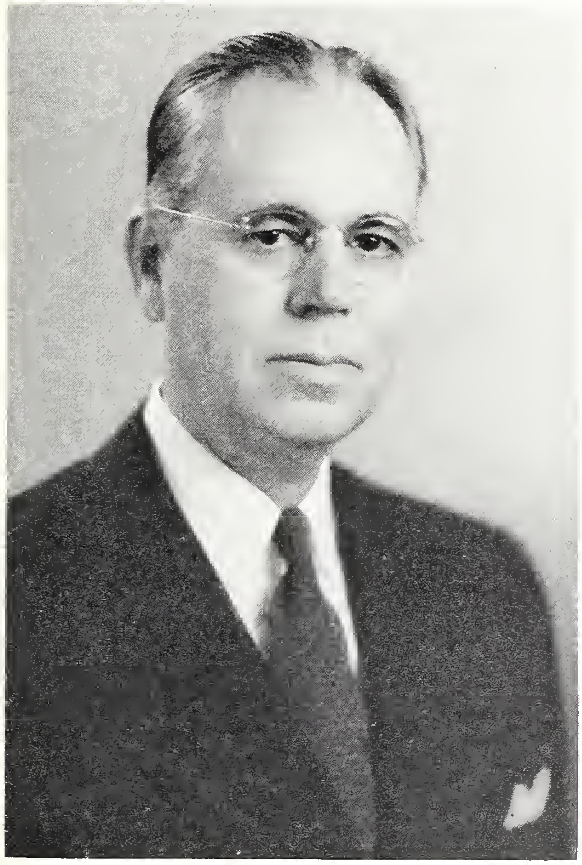
Blue Shield's dropping its age restrictions also is a forward step on the national level. That is the type of action needed to help defeat measures such as the Forand bill in Congress. If medicine can voluntarily start solving the problem of medical care for the older folks, there will be less pressure from the politicians and labor leaders to get into the act.

As a member of last year's Council, I cannot resist thanking MSMA members and delegates for their vote of confidence. All of the Council's recommendations to the House of Delegates were accepted with very little change. This year's Council can as always go ahead knowing it has the firm backing of Missouri's physicians.

EDITORIALS

Ralph Perry, M.D., Named President-Elect

The 100th Annual Meeting of the House of Delegates named Ralph Perry, M.D., Kansas City, as President-Elect of the Missouri State Medical Association. Dr. Perry will serve in this capacity until the 1959 Annual Session when he will be installed as President for a one year term.



Ralph Perry, M.D.

Dr. Perry has been active in organized medicine since he began practice in Kansas City in 1932, doing general practice and surgery.

Dr. Perry was born June 17, 1904, in Searcy County, Arkansas, where he attended grade school. He attended the Valley Springs Academy and Hendrix College before obtaining his degree in medicine in 1931 from the University of Arkansas. He interned at Research Hospital, Kansas City, and then became a surgical preceptor with Claude J. Hunt, M.D., Kansas City, until 1937, carrying on his practice in Kansas City during this time.

In 1938 Dr. Perry married Martha W. Roby and they live at 7140 Sni-A-Bar Road, Eastwood Hills, Kansas City. His office is 4800 East 24th Street, Kansas City.

Dr. Perry entered the United States Navy Reserve Medical Corps in January, 1943, as a Lieutenant, Senior Grade. He served in the surgical service at the Bremerton Naval Hospital, Bremerton, Washington, and the Naval Station, Astoria, Oregon. He graduated from the Naval School of Aviation Medicine at Pensacola, Florida, in 1944 with the designation of Flight Surgeon. He joined the Pacific Fleet Air Force and served as Flight Surgeon for Composite Squadron 86 aboard the Aircraft Carrier *USS Bismarck Sea* which took part in the Leyte, Linguayan and Iwo Jima operations and which was sunk by Japanese Kamakaze planes off Iwo Jima in February, 1945, with the loss of about 450 lives. Dr. Perry was in a cold and rough sea for about three and a half hours before being rescued by a destroyer escort.

Following this he returned to San Diego, California, as Senior Flight Surgeon of Carrier Aircraft Unit No. 5 with temporary additional duty as Flight Surgeon aboard the Aircraft Carrier *USS Shangrila*. He was separated from the Navy as Lieutenant Commander in February, 1946. He holds decorations of the Purple Heart, campaign ribbons of the American Theater, Asiatic-Pacific, three campaign stars; Philippine Liberation, two campaign stars; World War II Victory Medal. He is now a member of the Medical Company 9-4 USNR with rank of Commander and is public relations officer of this company. He serves as medical advisor to Selective Service Boards 49 and 50 in Kansas City.

Dr. Perry, in addition to county, state and national medical affiliations, is a member of the American Academy of General Practice, of the Missouri State Surgical Society, and of the professional fraternities of Phi Rho Sigma and Chi Zeta Chi. He was a member of the Republican State Committee from 1950 to 1954 and was a delegate from the 4th Congressional District to the Republican Nominating Convention in 1952.

Dr. Perry is a member of the Executive Council of the Jackson County Medical Society and was Councilor from the 7th Councilor District at the time of his election as President-Elect of the Association.

Ability has been demonstrated by Dr. Perry in medical and other fields and the House of Delegates chose well in its selection of Dr. Perry as President-Elect.

Columnist Jim Bishop as a Friend

Columnist Jim Bishop who took a slap at physicians earlier this year recently did an about-face in his syndicated column.

His article carried April 27 in the *St. Louis Post-Dispatch* tells the warm story of a physician's work to restore the usefulness of a boy's badly burned hands. It was a far cry from his earlier stories that provoked anger throughout the medical profession in the United States.

Bishop's earlier columns were vitriolic to the point of being nearly libelous. But his April 27 story presents doctors as we hope we appear to our patients.

Having devoted considerable space to Bishop's seemingly unwarranted attack on doctors, Missouri Medicine wishes now to thank him for his favorable comment.

Council Tackles Problem of Aged

Newspaper response to the recently formed Joint Council to Improve the Health Care of the Aged has been good throughout Missouri. It puts medicine in the position of doing something, not just opposing.

While the Joint Council came into being to offset the threat of the Forand bill, it could touch off a spirit of cooperation between the segments of the medical field that has been lacking. A determined effort by the four backers of the Joint Council—the American Medical Association, the American Hospital Association, the American Nursing Home Association and the American Dental Association—could do a lot to put medicine in the driver's seat again on health legislation.

Strong positive action is needed because various thought leaders are buying and espousing the jargon of the labor backers of the Forand bill. One of the most recent is Eleanor Roosevelt.

Mrs. Roosevelt chides the AMA for what she calls its backward attitude on the Forand bill that she describes as "reasonable health legislation."

Then in her column devoted to the bill to provide free hospitalization and surgical care to social security recipients, she spells out the problem for the Joint Council:

"Neither the medical profession nor the insurance companies, both of whom oppose this legislation, have come up with any better suggestions."

Recent action by Missouri Medical Service and Group Hospital Service in dropping all age limitations on Blue Shield and Blue Cross coverage is the type of answer needed for Mrs. Roosevelt. The Blue plans in Jackson County did this previously. In order to get more of them the Joint Council knows it must do extensive research and work.

The Joint Council is emphasizing the need for state and local governments to assume their proper responsibility for indigents. This covers "realistic support for medical, dental, hospital, and nursing home care for the aging who are unable to pay," according to the Joint Council.

This naturally means the Vendor program that was such a sore point at our recent session. As the smoke cleared away, Missouri physicians adopted a policy that is in complete accord with the action being urged by the Joint Council—except Missouri physicians intend to donate their services as they always have done for charity patients.

The Joint Council also plans to seek expansion and improvement of health care facilities by pushing for legislative action to speed building and remodeling of hospital and nursing home facilities for the aging.

Encouraging commercial insurance firms and other Blue plans to make their coverages available and more attractive to the older folks should prove to be a real fruitful field. As it now stands, about 6 million people over 65 have some degree of voluntary health coverage.

That is a good start, but the *St. Louis Globe-Democrat* gave the big picture in an editorial May 5. After applauding the formation of the Joint Council, it said:

"By 1975, nearly one out of every 10 Americans will be 65 or over. If there is no other way for these 22,500,000 men and women to meet their health needs, the demand for Washington 'to do something' will be irresistible.

"And 22,500,000 Americans may be wrong, but they won't be ignored by men who have to run for office."

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6. **To develop a program that will aid the particular individual in abstaining from all alcoholic beverages until death.**

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(A portfolio about the Problem of Alcoholism is available upon request).

Musings of the Field Secretary

Thirty-five gathered to honor Dr. Evans.

In April of 1900 a young doctor graduated from the Barnes Medical College of St. Louis and immediately "took himself off to the country" to minister unto the sick. He got no farther than Bonne Terre in his quest for a location. Here he began his medical practice and as this column goes to press he is still at it. A. L. Evans, M.D., our doctor in question, is the only living charter member of the original local medical society, which through hyphenations is now known as the Mineral Area Medical Society.

On Sunday night, March 30, 1958, his Medical Society, and its Woman's Auxiliary, held a Doctor's Day Banquet to honor him for his many years of devoted service in his profession. To share this honor with him was his life partner for 56 years, Mrs. Evans.

This signal affair was held at Andrews Cafe, Desloge, with 35 people, including doctors and their wives, present. The banquet tables were uniquely decorated including place cards with hand-painted flowers by Mrs. Marvin Haw of Bonne Terre.

Dr. and Mrs. Evans were seated at the head table.

At the conclusion of an excellent meal, Dr. Jack Mullen, President of the Mineral Area Medical Society, introduced special guests and paid due credit to the various members of the Auxiliary who handled the banquet arrangements. He then called upon Dr. Marvin Haw of Bonne Terre to take over the program. Dr. Haw proceeded to ask Dr. Evans a number of questions designed to bring out comments and revelations of interesting experiences from his many years of practice. Dr. Evans related that his first mode of travel, when he began practice, other than walk, was by bicycle. He progressed from the seat of a bicycle to the back of a horse and then to the seat of a buggy. His first automobile for use in his practice was a 1916 Model "T" Ford, and he is now driving his 22nd car. He remembers the first telephone line erected between Farmington and Bonne Terre in 1902. Two sets of triplets are counted among his more than 2,000 deliveries.

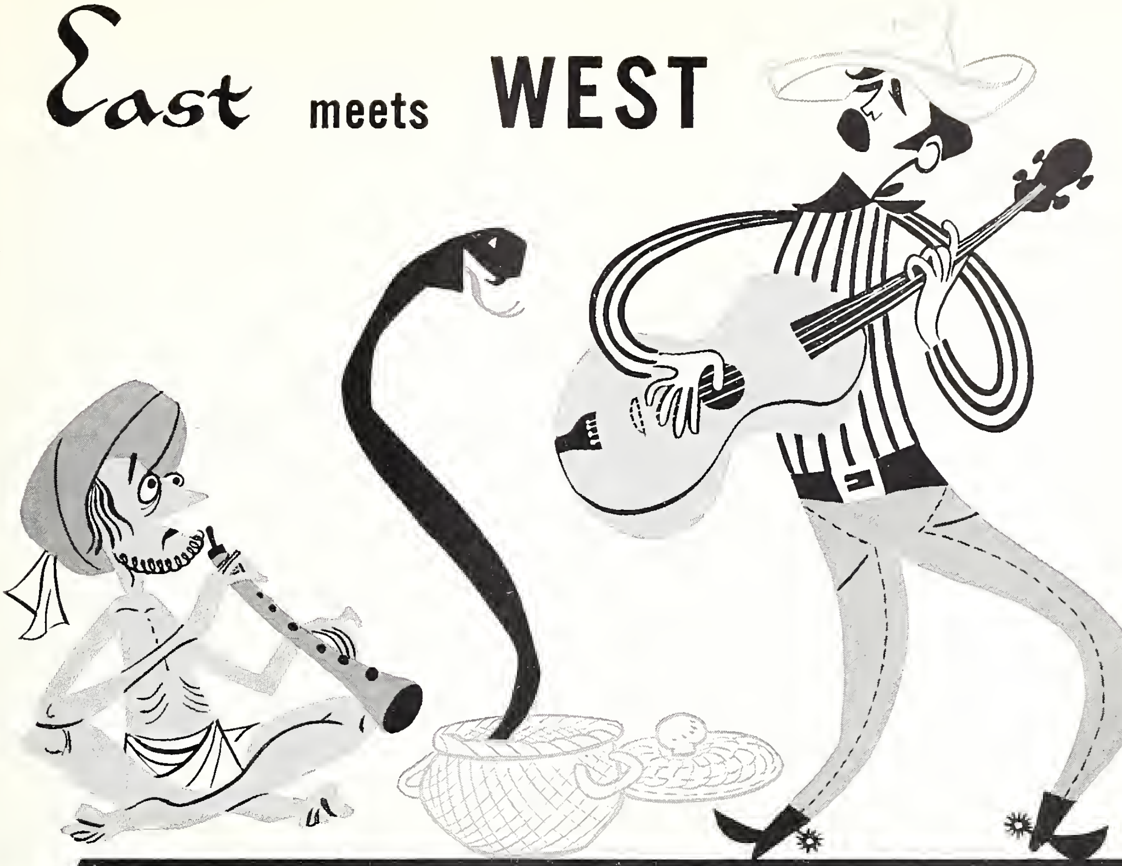
Dr. Evans tries out the chair that was given him.

Farmington is a bit easier to get into these days than back in 1900. At that time Dr. Evans said that one had to pay 10 cents at a toll gate coming in from the East or West. From the North and South no toll gates barred the way so the traffic moved in, for free, from those directions.

Dr. Evans is a great believer in people spending more time out-of-doors, even to bringing back the somewhat forgotten sleeping porch. He may have something there judging from his spry condition at his present age of 87.

As a climax to the evening program, Dr. Mullen on behalf of the Mineral Area Medical Society, presented Dr. Evans a "Governor Winthrop Commemorative Chair" decorated with a plaque suitably inscribed with the society's sentiments.

East meets WEST



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News

John H. Killough, M.D., Columbia, has been appointed to a post with the Veterans Administration in Atlanta, Georgia. Dr. Killough, formerly the acting chairman of the Department of Medicine at the University of Missouri School of Medicine, left Columbia March 28 to assume the new duties of coordinator of departments of internal medicine in 22 V.A. hospitals in the Atlanta area.

"Changing Concepts of Medical Practice and Medical Education" was the subject of the lecture given by **Roscoe L. Pullen,** M.D., Columbia, before the annual dinner meeting at the Menorah Medical Center April 21 in Kansas City. The lecture, a memorial to former medical staff members, was held in conjunction with Medical Education Week.

Four St. Louis physicians were honored for "long and valuable service" in the fields of medicine and dermatology at a meeting of the Missouri State Dermatologic Society on April 13. They are Dr. **Richard S. Weiss,** former professor of dermatology at the Washington University School of Medicine; the late Dr. Adolph A. Conrad, Sr.; and Drs. **Ernest Spitzer** and **Theodore Greiner,** now retired.

William E. Henrickson, M.D., Poplar Bluff, who was seriously injured in an automobile accident in Illinois on February 6, has returned to his office and practice.

E. J. Schewe, M.D., Columbia, was appointed by **H. M. Hardwicke,** M.D., acting director of the Division of Health, as chief surgeon at the Ellis Fischel State Cancer Hospital, effective April 1. Dr. Schewe succeeds **Ned D. Rodes,** M.D., who resigned to enter private practice in Mexico, Missouri. Dr. Rodes will be retained as a consultant to the hospital staff on a part-time basis.

Recently named medical director of the Missouri Crippled Children's Service was Dr. **Owen A. Kearns,** Monrovia, California. Dr. Kearns will assume his new duties on July 1. He will hold the title of associate professor of preventive medicine and public health at the University of Missouri, which administers the children's service for the state.

"Your Child's Health and Happiness" was the subject of a talk given by **Urban Busiek,** M.D., before the Washington School P.T.A. in Springfield on March 18.

The University of Missouri's annual clinic for high school football coaches was held in Columbia March 20-22. Dr. **James Baker,** Columbia, who is team physician, participated in a symposium on the management of athletic injuries.

J. J. Wimp, M.D., Kirksville, has filed for the Democratic nomination for State Representative from Adair County.

Speaking before the Boonville Kiwanis Club on April 2 was **M. Pinson Neal,** M.D., Columbia. He spoke on the symptoms of cancer.

In a recent issue of *Hospital Management,* **Frank R. Bradley,** M.D., St. Louis, was complimented for his contribution to improved patient care. Dr. Bradley was a prime mover in establishing the Joint Commission for the Improvement of the Care of the Patient and was its first chairman in 1948.

The prevention of home accidents was discussed on April 1 at a meeting of the health education section of the Social Planning Council by Dr. Park White, director of the pediatrics department, Homer G. Phillips Hospital, and Drs. **J. Earl Smith** and **Herbert Domke,** St. Louis Health Commissioner and St. Louis County Health Commissioner respectively.

Edward D. Kraft, M.D., St. Louis, was installed as president of the Missouri State Society of Anesthesiologists in April. He succeeds **Carl K. Ness,** M.D., St. Joseph.

A. J. Campbell, M.D., Sedalia, recently was elected to a two-year term on the Board of Directors of the Sedalia Jaycees.

William J. Stewart, M.D., Columbia, attended a three-day sectional meeting of the American College of Surgeons in Des Moines, March 27-29. Dr. Stewart is a member of the organization's board of governors.

The 13th Annual Medical Convention of the Homer G. Phillips Alumni Association was held in St. Louis April 28 to May 1, 1958.

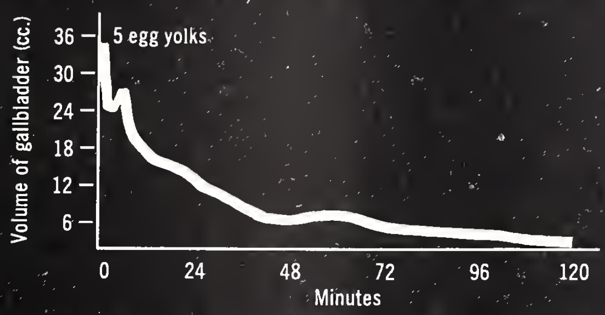
Arthur B. Smith, M.D., Kansas City, was elected president of the Research Clinic medical staff at the annual election of officers April 7. Drs. **Revis C. Lewis, Warren F. Wilhelm,** and **Ira T. Smith,** all of Kansas City, were named vice president, secretary and treasurer respectively.

Edward H. Hashinger, M.D., Kansas City, appeared on the program of the 10th A.A.G.P. National Scientific Assembly held in Dallas, Texas, March 24 to 27. Dr. Hashinger was moderator for a presentation on "The Problems of the Aging."

AN AMES CLINIQUICK

CLINICAL BRIEFS FOR MODERN PRACTICE

"EMPTYING" OF GALLBLADDER AFTER FATTY MEAL*



*Adapted from Wright, S.: Applied Physiology, ed. 8, London, Oxford University Press, 1947, p. 734.

What's wrong with the term "emptying of the gallbladder"?

The gallbladder discharges bile by fractional evacuation. It is not emptied completely at any one time even following a fatty meal.

Source—Lichtman, S. S.: Diseases of the Liver, Gallbladder and Bile Ducts, ed. 3, Philadelphia, Lea & Febiger, 1953, vol. 2, p. 1177.

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Michael Bernreiter, M.D., Kansas City, has been invited to speak before the Fifth International Congress on Diseases of the Chest, to be held in Tokyo, Japan, September, 7 to 11, 1958. His subject will be "Tietze's Syndrome and the Differentiation of Chest Pain."

Named president-elect of the Menorah Medical Center staff at the annual meeting, April 14, was **Harold Passman**, M.D., Kansas City. He will succeed **Joseph H. Printz**, M.D., Kansas City, who is now president. Drs. **Edward J. Twin**, Kansas City, was elected secretary, and **Sanford Simon**, Kansas City, treasurer.

Doctors' Day observances were held throughout Missouri Sunday, March 30. Two pioneer Missouri physicians were honored on this day for long, notable service to their communities. They were **C. W. Kirk**, M.D., Hopkins, for over 50 years of medical service, and **Albert L. Evans**, M.D., Bonne Terre, for his 58 years' service.

Speaking before the Columbia Kiwanis Club on April 8 was Dr. **Ned D. Rodes**, who discussed the public education program of the Robert E. Lee Hill Cancer Crusade.

Danger signals pointing to the possibility of cancer were discussed at the St. Joseph Kiwanis Club luncheon on April 3 by **Claude K. Leeper**, M.D., Columbia. Dr. Leeper was introduced by **Caryl A. Potter, Jr.**, M.D., St. Joseph.

After 45 year's service to his community **J. Edward Baird**, M.D., Excelsior Springs, is retiring from medical practice. Dr. Baird, who practiced in Oklahoma five years before entering practice in Missouri, received his 50-year pin from the Missouri State Medical Association in April.

A. McChesney Evans, M.D., Columbia, addressed a meeting of the Vernon County Unit of the American Cancer Society in Nevada on April 11. Dr. Evans discussed new types of cancer case findings, the seven danger signals of cancer and the newer methods of treatment for the disease. **Rolla B. Wray**, M.D., Nevada, introduced Dr. Evans.

James G. Bruce, M.D., Jefferson City, recipient of a 50-year pin from the Missouri State Medical Association in April, was honored by the Cole County Medical Society at a testimonial dinner for his 50 years' service in the medical profession. Dr. Bruce, a native of Nova Scotia and a former backfield star for a champion Canadian college football team, came to Missouri 35 years ago. He has served as city physician since 1932, served one term as Cole County corner, has been medical consultant for the State Welfare department, former president of St. Mary's hospital staff, and served as president of the Cole County Medical Society for eight years. A plaque commemorating 50 years of service to medicine was presented Dr. Bruce by the Society as well as a gold wrist watch.

Staff officers of the new Texas County Memorial hospital, Houston, are **Garrett Hogg**, M.D., Cabool, president and chief of staff, and **Frank A. Elders, Jr.**, M.D., Houston, secretary. **T. J. Burns**, M.D., Houston, was appointed chief of surgery, and **John R. Tarr**, M.D., Houston, chief of medicine.

Frank L. Feierabend, M.D., Kansas City, was elected president-elect of the Blue Shield Medical Care Plans at the annual meeting of the plans in Chicago, April 30. Dr. Feierabend served as a member of the Board of Trustees of Surgical Care of Kansas City and is president of that organization.

NEW MEMBERS

Acker, Harry L., M.D., 6150 Oakland Avenue, St. Louis 10. St. Louis Medical Society.

Anderson, Paul B., M.D., Neosho. Ozarks Medical Society.

Barnes, Charles R., M.D., 105 Beaumont Building, St. Louis 8. St. Louis Medical Society.

Bennett, Thomas T., M.D., 4500 West Pine Boulevard, St. Louis 8. St. Louis Medical Society.

Caldwell, Fred T., Jr., M.D., 600 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Carlton, Irwin F., M.D., Festus. Jefferson County Medical Society.

Estes, Jack M., M.D., 8307 Jennings Road, St. Louis 21. St. Louis County Medical Society.

Gall, Ira, M.D., 630 South Kingshighway, St. Louis 10. St. Louis County Medical Society.

Gilden, Jerome J., M.D., 100 North Euclid Avenue, St. Louis 8. St. Louis Medical Society.

Gray, Helen M., M.D., 3 Edgewood Road, St. Louis 24. St. Louis County Medical Society.

McNalley, Michael, M.D., 950 Francis Place, St. Louis 5. St. Louis County Medical Society.

Owen, Robert F., M.D., 4910 West Pine Boulevard, St. Louis 8. St. Louis Medical Society.

Robertson, George D., M.D., 600 South Kingshighway, St. Louis 10. St. Louis Medical Society.

Smathers, John H.., M.D., 5535 Delmar Boulevard, St. Louis 12. St. Louis Medical Society.

Solomon, H. James, M.D., 1515 Lafayette, St. Louis 4. St. Louis Medical Society.

Tippett, Jack C., M.D., 4385 Maryland Avenue, St. Louis 8. St. Louis Medical Society.

Turner, James K., M.D., 8473 Colonial Lane, St. Louis 24. St. Louis County Medical Society.

Walton, Marion C., M.D., Festus. Jefferson County Medical Society.

Wiedershine, Leonard, M.D., 634 N. Grand Avenue, St. Louis 3. St. Louis County Medical Society.

Wood, James A., M.D., 35 North Central Avenue, St. Louis 5. St. Louis County Medical Society.

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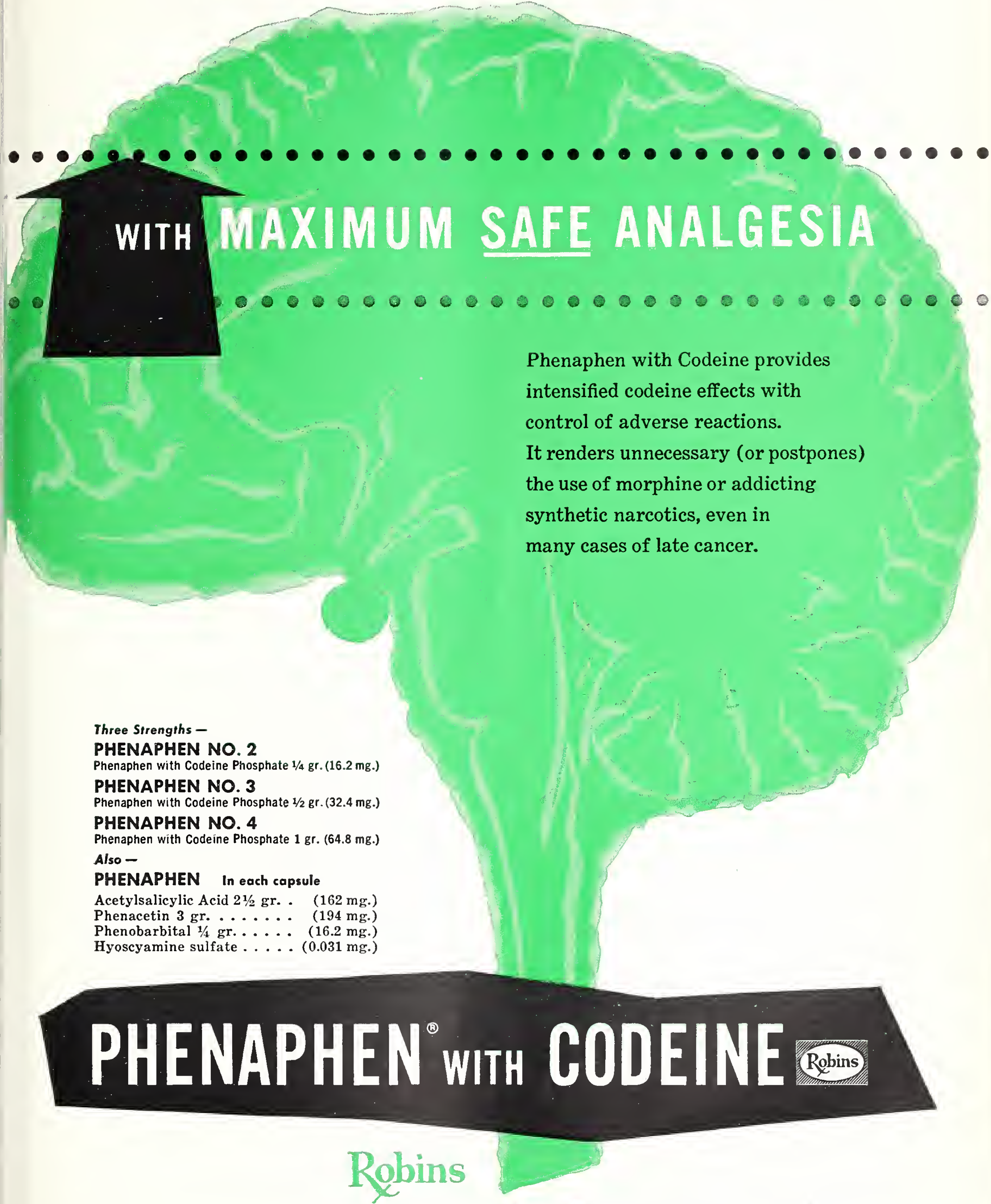

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met April 10, at the Strand Hotel in Chillicothe. Including members, Auxiliary members and guests, about 60 were present. After the guests were introduced the Auxiliary members retired to their meeting and the scientific program was presented by Dr. Eugene L. Bales and Dr. E. Warren Allen who discussed "The Management of Difficult Fractures Common to Present Day Accidents." This was an excellent presentation of an interesting subject. X-rays were shown of serious fractures, the treatment and, later, the end results, which were good indeed. They also presented a number of patients describing their injuries, treatment and results.

Dinner preceded program.

After considerable discussion it was agreed that the Society approve a $10.00 increase in dues for 1959.

As to the numerous legislative bills pending and anticipated our Society seems to agree with the AMA recommendations.

The minutes of the last meeting were read and approved. There being no further business the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

On Thursday night, April 10, the Chariton-Macon-Monroe-Randolph County Medical Society held its monthly dinner meeting at the Woodland Hospital in Moberly.

The guest speaker was Mr. Harry L. Miller, assistant-vice president of St. Louis Union Trust Company. As a part of his presentation he showed a film entitled "So Little For Eve," which described what happened to the family of a successful businessman who failed to plan properly for disposition of his estate. In addition, Mr. Miller answered a number of questions pertaining to estate planning which were directed to him from many of the doctors present.

Those attending the meeting were: Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. G. C. Rice, Brunswick; Dr. D. E. Eggleston and Dr. H. S. Miller, Macon; Dr. G. M. Ragsdale, Paris; Dr. C. C. Weger Keytesville; Dr. P. V. Dreyer, Huntsville; Dr. Josephine Baker, Dr. W. D. Chute, Dr. C. C. Cohrs, Dr. J. Will Fleming, Dr. T. S. Fleming, Dr. Robert Hasson, Dr. A. P. Rowlette, Dr. C. C. Smith, Dr. S. R. Szymanski and Dr Robert H. Young, Moberly.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society held its regular meeting Tuesday, March 18, at the Jefferson Memorial Hospital. The meeting was called to order at 8:15 p.m. by the President, Dr. Karl McKinstry.

The scientific program was presented by Dr. Harold Roberts, Assistant Professor of Clinical Medicine at Washington University Medical School, who talked on "Complications of Diabetes and Diabetes in Pregnancy." One of the practical points that he brought out was the possibility of lowering fetal mortality rates by inducing labor about the 36th week.

Following this Dr. H. M. Hardwicke, Director of the Missouri Department of Health, and Dr. Charles M. Meinershagen, also of the Department of Health, presented to the Society the details of their plan to set up a multi-phasic screening project at the County Health Center at Hillsboro. After considerable discussion the Society gave its approval to the project by a large majority. The president then appointed the following committee from the Society to keep in touch with progress of the project: Dr. John F. Rutledge, Dr. I. L. Carlton, and Dr. J. L. Mayfield.

We received the applications for membership in our Society of two doctors new in our community, Drs. M. C. Walton and I. L. Carlton. Their credentials were in order and the Society voted to receive them into membership on payment of their county, state and AMA dues.

The following doctors were present: Drs. R. H. Allbee, B. Bolgar, I. L. Carlton, F. L. Kozal, K. V. McKinstry, J. L. Mayfield, C. E. Rice, J. F. Rutledge, A. D. Sexauer, E. J. Senn, and M. C. Walton.

The meeting adjourned at 10:30 p.m. following our usual delicious refreshments which the hospital so kindly furnishes with each meeting.

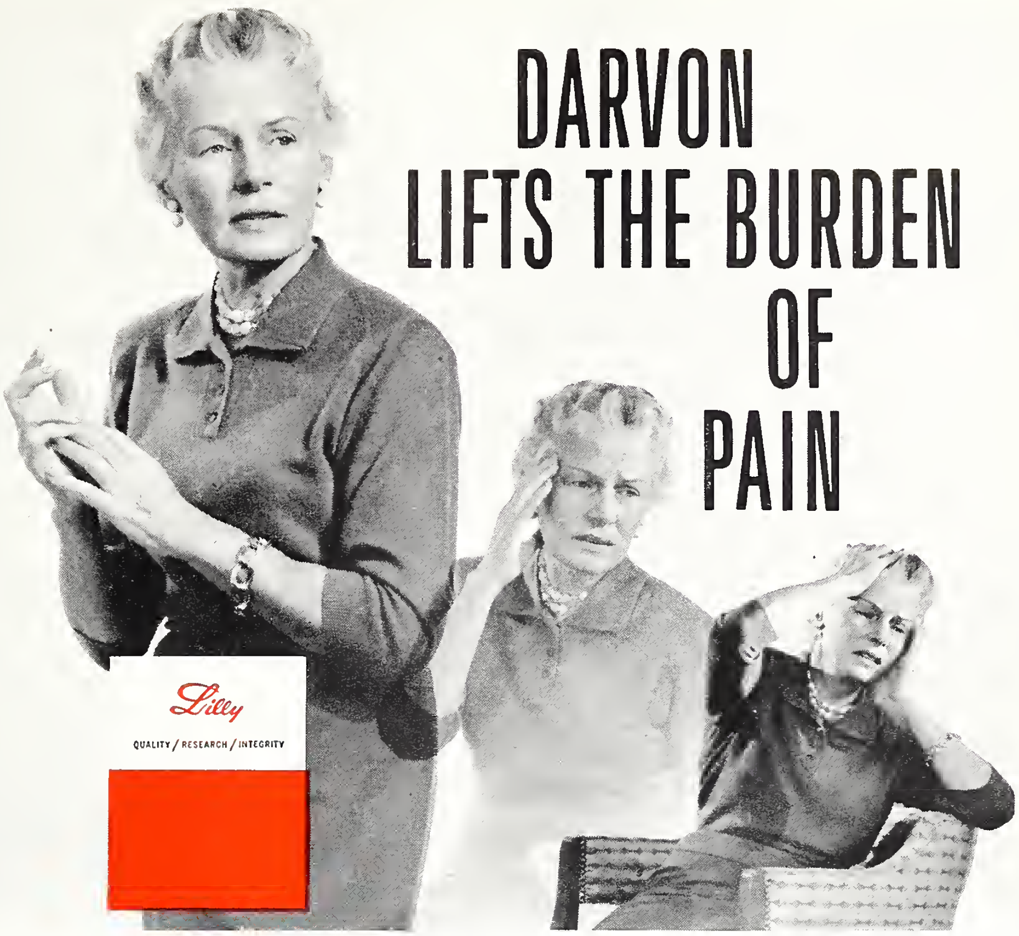
John F. Rutledge, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

West Central Missouri Medical Society

A dinner meeting of the West Central Missouri Medical Society and doctors' wives was held at the Harrison-



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Acetophenetidin	*162 mg.*
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The audience was attentive.

ville Hotel at Harrisonville, on Thursday night, April 10. The evening festivities began with a social hour followed by dinner and then the scientific program.

The discussion for the evening was given by Dr. Ralph E. Duncan, Kansas City, Chairman of the Missouri State Medical Association's Committee on Alcoholism, his subject was "Alcoholism, The World's Personal Problem."

Dr. Duncan appeared on this program under the auspices of the Missouri Academy of General Practice.

J. C. Moody, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society met at Roaring River State Park dining room, Cassville, at 7:30 on April 8.

A business session preceded the program.

An excellent program was presented by Dr. Andrew L. Hahn and Dr. Glenn O. Turner, Springfield; the subjects respectively being, "Differential Diagnosis of Jaundice" and "Coronary and Cardiac Symptoms, Diagnosis and Treatment."

Thirty-five members, guests and auxiliary members were present. At the business meeting, following reading of the minutes, on motion by Dr. McCallum, seconded by Dr. Hobbs, A. J. Graves, M.D., was elected to replace Dr. McCallum as alternate of Lawrence County, since it was apparent neither the delegate nor the alternate would be able to attend the State Meeting. Then, after some preliminary discussion, Dr. McCallum made the motion that the Ozarks Medical Society, having never sent instructed delegates to the State Medical Association Meeting, revise the instructions given at the March meeting, as concerns the Vendor Program, and have them go to the meeting without instructions or prejudice on this subject, should it come up at the meeting. This was seconded by Dr. Cohnberg and was passed by a vote of 11 to 4, with several members abstaining.

Taney County was designated the site of the next meeting in May. There being no further business the meeting was adjourned.

A. J. Graves, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Pemiscot County Medical Society

The April 10 meeting of the Pemiscot County Medical Society was called to order by the President, Dr. Poff, after a dinner at the hospital dining room. The following members were present: Drs. Aquino, Bryant, Caldwell, O. W. Cook, G. Duckworth, J. Duckworth, Gubin, Hensley, Lamb, Joe and Nathan Poff, Shirey and Acuff.

Under new business, Dr. O. W. Cook was designated program chairman for the May meeting and Dr. Lamb was designated alternate program chairman.

Dr. Duckworth read a letter from the United States Representative, Paul Jones, concerning the Medical Society's opposition to the Forand Bill.

Dr. Poff introduced Mr. Niswonger, who is the regional consultant of the Missouri Heart Association, located at Poplar Bluff. He began with some introductory remarks concerning the work of the Heart Association and introduced the Society to some pamphlets and other information on cardiac problems. Then a movie was shown titled "Three Key Questions in Coronary Artery Disease" produced by the Upjohn Pharmaceutical Company, which was one from the Grand Round series.

Having no further business at hand, the meeting was adjourned.

John K. Duckworth, M.D., *Secretary*

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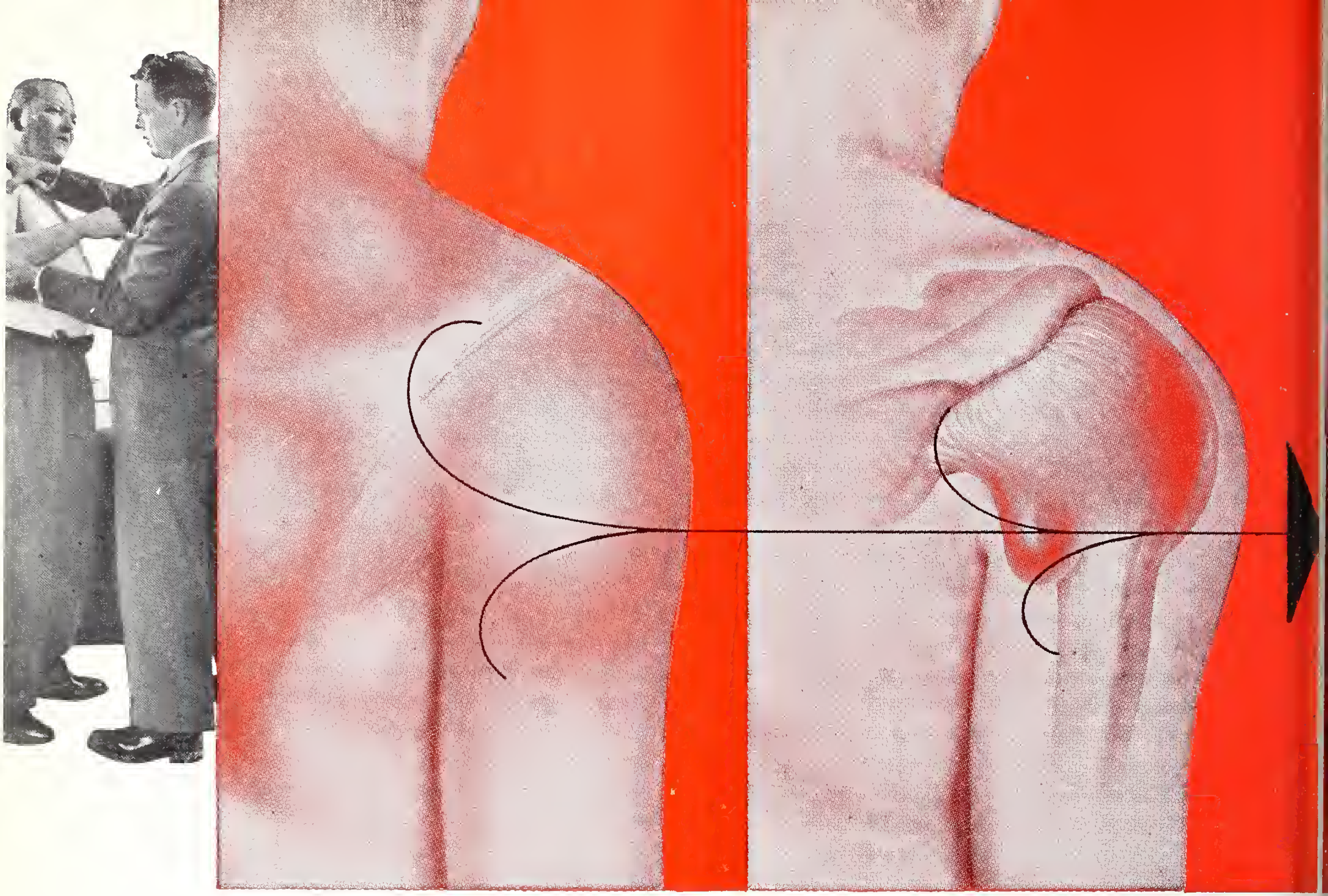

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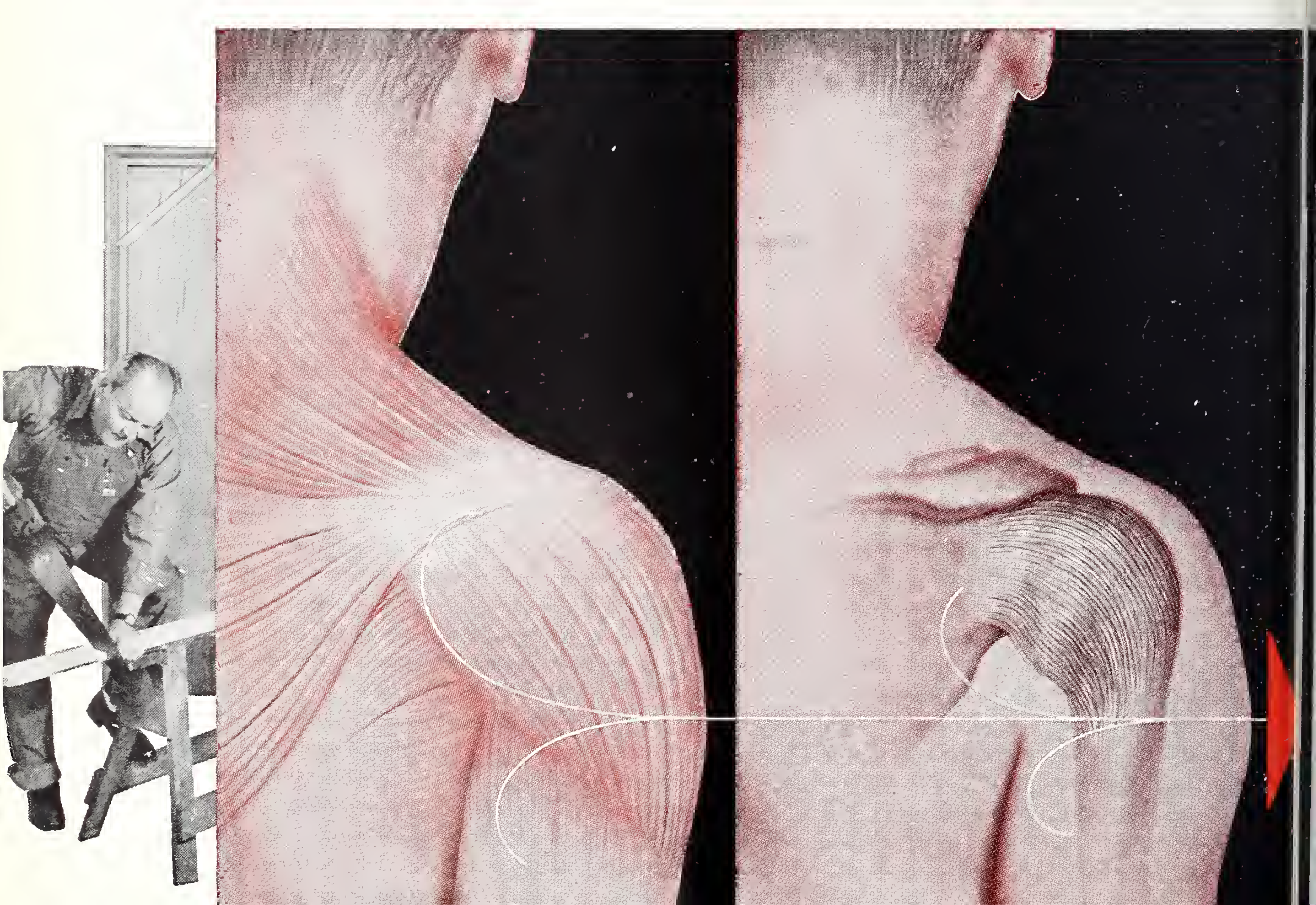

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morning sun glare – eyes irritated
can't read – coach smoky
leave the work – let's lunch
back to work – eyes worse
take afternoon off – see doctor
pick up VISINE – home again
let's try the drops
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1. Grossmann, E. E., and Lehman, R. H.: Am. J. Ophth. 42:121, 1956.

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From the Medical Schools

WASHINGTON UNIVERSITY

Lectures, Open House

Dr. Michael Fuortes, chief of the neurophysiology section, National Institute of Neurological Diseases and Blindness, Bethesda, Md., delivered the third annual George H. Bishop Lecture in experimental neurology April 11 at Washington University School of Medicine. Dr. Fuortes discussed "Generation of Nerve Impulses in Receptor Organs." Preceding the lecture, a Washington University Neurology-Neurosurgery Alumni Conference was held. Papers were presented by investigators from various parts of the country who received all or part of their training under Dr. Bishop, professor emeritus and lecturer in neurophysiology at Washington University; Dr. James L. O'Leary, professor of neurology, or Dr. Henry G. Schwartz, professor of neurosurgery. An afternoon Beaumont-May Symposium on "Membranes States: Excitation and Inhibition" was moderated by Dr. O'Leary. Panelists were Dr. Bishop; Dr. Theodore Bullock, professor of zoology, University of California; Dr. Alexander Forbes, professor emeritus of physiology, Harvard University; Dr. Fuortes; Dr. Harry Grundfest, associate professor of neurology, Columbia University College of Physicians and Surgeons; Dr. Herbert Jasper, chairman of the department of neurophysiology and professor of experimental neurology, McGill University, Montreal, Quebec, Canada; Dr. Stephen Kuffler, professor of ophthalmic physiology and biophysics, Johns Hopkins Medical School; Dr. Wade Marshall, neurophysiologist, National Institutes of Health; and Dr. Ichiji Tasaki, chief, section on special senses, National Institute of Neurological Diseases and Blindness.

Dr. David Kipnis, assistant professor and Markle scholar in biochemistry in medicine at Washington University gave the sixth annual Alpha Omega Alpha lecture April 24. The lecture was sponsored by Washington University Chapter of Alpha Omega Alpha, national medical honor society. Dr. Kipnis discussed "Permeability Factors in Skeletal Muscle Metabolism." A 1951 medical graduate of the University of Maryland, Baltimore, he received further training at Johns Hopkins and Duke Universities and was a research fellow under Dr. Carl Cori in the department of biochemistry at Washington University from 1955 to 1957.

Nine senior medical students at Washington University presented scientific reports at the annual senior research assembly April 25 in David P. Wohl Jr. Memorial Hospital auditorium. All research projects were carried on in addition to regular classwork during the students' four-year medical school training. Eight additional students reports were read by title. Robert B. Winter was assembly chairman. Presenting reports were Jerome L. Silverman, Norman D. Anderson, Richard E. Bryant, Sidney M. Richman, Jerome F. Levy, Morton H. Kirsch, Benjamin A. Borowsky and David M. Kessner and Joe R. Williamson. Papers by Theodore J. Brickner, Jr., George E. Broman, Michael Gass, Donald R. Harkness, Lucy Jane King, Robert I. Lindemeyer, Herbert Lubowitz and Bryce L. Munger were read by title.

M.E.N.D. lectures were sponsored by the Medical Education for National Defense group at Washington University School of Medicine on April 16, April 22 and April 23. The first lecture, "Problems of Pain Relief and Anesthesia in Disaster Areas" was given by Col. Harvey C. Slocum, chief of anesthesia and operative service at Walter Reed Army Hospital, Washington, D. C., and professional consultant in anesthesiology to the surgeon general. On April 22, Dr. John Bean, professor of physiology, University of Michigan Medical School, Ann Arbor, lectured on the more prominent effects of oxygen at high pressures and on April 23, he spoke on the circulatory and endocrine factors in the reaction to oxygen at high pressures.

Student representatives and guidance personnel from senior high schools of St. Louis and St. Louis County and from junior colleges within 100 miles of St. Louis attended an open house April 26 in the departments of occupational therapy and physical therapy at Washington University School of Medicine. Following luncheon, a program, "Rehabilitation in Action" was given in Wohl Hospital auditorium. Cooperative roles of the physician, physical therapist and occupational therapist in the medical rehabilitation of a severely injured patient was depicted. During tours of the occupational and physical therapy departments, student demonstration of therapy techniques were given.

Grants, Award

Grants totaling $21,240 were awarded Washington University School of Medicine by the National Multiple Sclerosis Society. A $10,244 new grant to Dr. Oliver H. Lowry, dean of the medical school and professor and chairman of the department of pharmacology, will support research on the quantitative histochemistry of allergic encephalitis, an experimental disease that resembles multiple sclerosis. Dr. Robert Heitman, a visitor from Hamburg, Germany, will work full time on this study. A $10,996 grant to Dr. Eli Robins, associate professor of psychiatry, will support study of the chemical and enzymatic basis of inhibition in the brain and also a study of the enzymes involved in making or breaking down the myelin in the brain.

Joe R. Williamson, senior medical student at Washington University, has been selected as one of five students throughout the United States to receive a 1958 Sheard-Sanford Prize by the American Society of Clinical Pathologists. The award was made for a research project on "Electron Microscopy of Early Effects of Alloxan in the Pancreas of Rabbits." The work was done in the department of pathology at Washington University during Williamson's undergraduate medical training.

UNIVERSITY OF MISSOURI

Visitors at the Medical Center

Brigadier General James H. Forsee, Chief, Department of Surgery, and Chief of Professional Services and Deputy Commander, Walter Reed Army Medical Center, Washington, D. C., was a visitor on the campus of the University of Missouri Medical Center on April 14, 1958. General Forsee was traveling to St. Louis where, on April 15, he was presented a Citation of Merit by the University of Missouri Alumni Association. General Forsee received his B.S. in Medicine

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from the University of Missouri in 1925 and his M.D. from Washington University in 1929. During World War II, he was awarded the Legion of Merit and the Medal of Valor by Italy. He was consultant in Thoracic Surgery to the Surgeon General, Department of the Army. Following World War II, General Forsee became Chief of the Surgical Services at Fitzsimons Army Hospital and served in this capacity for six years. In 1956, he was appointed the Chief Surgical Consultant of the United States Army in the Far East. General Forsee is the author of "The Surgical Treatment of Pulmonary Tuberculosis" published in 1954.

During his visit to the Medical Center, General Forsee addressed the faculty and student body on the subject of "The Surgical Treatment of Pulmonary Tuberculosis."

Meetings Held at the Medical Center

The fourth meeting of the Medical History Group was held on April 9 at the Medical Center. Dr. Don Carlos Peete, associate clinical professor of medicine and lecturer in the history of medicine at the University of Kansas, spoke to the group and discussed "Some People Responsible for the Present Day Treatment of Heart Disease." The next meeting of the group will be held on Wednesday, May 7.

Trips and Talks by the Faculty of the School of Medicine

Dr. Roscoe L. Pullen, Dean of the School of Medicine, presented the welcoming address at the South Central Regional Meeting of the College of American Pathologists held at the Medical Center on April 12 and 13. The meeting was held in the form of a slide-seminar on "Medical-Legal Aspects of Pathology" on Saturday, April 12 with discussion the second day on Central Pathology Laboratories, and a tour of the Medical Center.

Dr. Frank B. Engley, Jr., Assistant Dean of the School of Medicine, participated in a panel discussion on KOMU-TV on March 20. The discussion was in connection with Science Teacher and Student Recognition Day and other members of the panel were: Donald L. Waidelich, professor of electrical engineering; Robert S. Daniel, professor and chairman of the Department of Psychology; and Henry E. Bent, Dean of the Graduate School and professor of chemistry. On March 21, Dr. Engley spoke to a group of 1,500 high school science students on the "Opportunities and Careers in Science," in connection with the Science Recognition Day. Dr. Engley spoke to a meeting of the Gamma Graduate Science Fraternity on March 26 on "Research Developments at the University of Missouri School of Medicine." Approximately 50 were present at the meeting.

The following members of the staff of the Department of Anatomy attended the meeting of the American Association of Anatomists held in Buffalo, New York on April 2, 3, and 4, 1958: Dr. M. D. Overholser, professor and chairman of the Department of Anatomy; Dr. E. W. Lowrance, professor of anatomy; Dr. Jerry W. Brown and Dr. Stuart O. Landry, Jr., assistant professors of anatomy; and Dr. Kenneth L. Fitch and Dr. F. Eugene Doenges, instructors in anatomy. Approximately 1,000 were registered at this meeting and papers were presented in six separate simultaneous sections.

Those presenting papers from the University of Missouri were as follows: Dr. Lowrance, "Linear Measurements and Variability of 105 Skulls of Asiatic Origin," by E. W. Lowrance and Charles E. Westrup. Dr. Brown, "The Nucleus of the Spinal Tract of the Trigeminal Nerve in the Gibbon (Hylobates lar)." Dr. Fitch, "Glycogen Changes in the Frog Oviduct during Ovulation" by Kenneth L. Fitch and Dr. Arthur W. Merrick of the Physiology Department. Dr. Doenges, "Sympathetic Fibers in the Cervical Vagus Nerve.

On April 11, Dr. Doenges attended the meetings of the Washington University Neurology-Neurosurgery Alumni Conference, the Beaumont-May Symposium and the Annual George H. Bishop Lecture on Experimental Neurology held at Washington University School of Medicine in St. Louis. Approximately 50 neurosurgeons and neuro-physiologists attended these meetings.

Dr. Owen J. Koeppe, associate professor of biochemistry, attended a Biochemistry Seminar on "Purine Synthesis" presented by Dr. G. R. Greenberg of the University of Michigan. The seminar was sponsored by the Biochemistry Department of the University of Kansas and held in Kansas City.

Dr. Thomas W. Burns, associate professor and acting chairman of the Department of Medicine, and Dr. William D. Gaunt, assistant professor of medicine, attended a meeting of the Missouri Diabetic Association held in St. Louis on April 15. This was a dinner meeting for the purpose of elections and adopting of bylaws which was followed by a speaker for the evening, Dr. Perry McCullagh, who spoke on "Thyroid Disease."

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended a Symposium on Genetics in Medical Research held at the University of Wisconsin School of Medicine on April 7 to 10. While there, Dr. Engley also visited the Department of Bacteriology in the School of Medicine and the School of Agriculture.

The following members of the Department of Microbiology attended a meeting of the Missouri Valley Society of American Bacteriologists held at Kansas State University, Manhattan, Kansas on April 11 and 12: Dr. Herbert S. Goldberg, associate professor of microbiology; Dr. James T. Barrett, Dr. Robert Keller, and Dr. Michael H. Ivey, assistant professors of microbiology. Research papers were presented and discussions were held concerning various research topics with other participants. The group also toured the campus and the Microbiology facilities in particular. On March 27, 28, and 29, Dr. Barrett attended a symposium on the "Mechanisms of Hypersensitivity" sponsored by the Henry Ford Hospital and held in Detroit, Michigan. Approximately 300 attended this meeting.

Dr. Jacob S. Roden, associate professor and chairman of the Department of Obstetrics and Gynecology, spoke at the meeting of the Phelps County Medical Society in Rolla on March 19. He talked on the subject of "The Value of the Papanicolaou Smear in the Gynecologic Patient." On April 12, Dr. Roden participated in a panel on "What Is Modern Preparation for Marriage?" sponsored by the Missouri Association of Marriage Counselors and held at Stephens College in Columbia. Approximately 40 attended this panel discussion.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, attended the staff meeting of the Phelps County Memorial Hospital on March 18 at Rolla to discuss "Exfoliative Cytology" with the staff. On April 8, Dr. Flynn and Dr. John L. Modlin, clinical associate in surgery, attended a Clinical Pathological Conference held by the Lafayette-Ray County Medical Society in Lexington. On April 12, Dr. Flynn attended the meeting of the Missouri Society of Pathologists and presided at the business meeting of the Society. Approximately 40 attended this meeting. On April 15, Dr. Flynn presented the after dinner speech at the Missouri Society of Pathologists meeting in St. Louis. His subject was "Die Krankeit des Heimsklavendienst."

Dr. M. Pinson Neal, professor of pathology, was speaker at the meeting of the Boonville Kiwanis Club on April 2. In observance of April being Cancer Month, Dr. Neal spoke to the group on "Optimism and Hopes in the Cancer Field." On April 12 and 13, Dr. Neal attended the Regional Meeting of the College of American Pathologists at which he reported on the activity of the Recruitment Committee for the Training Program on Medical Technology.

Dr. Claude K. Leeper, assistant professor of pathology, attended a meeting of the Scott County Medical Society and the medical staff of Delta Community Hospital held in Sikeston on March 19 at which time he addressed the group on the "Office Practice of Exfoliative Cytology." On April 2, Dr. Leeper spoke at the meeting of the Buchanan County Medical Society and the Buchanan County Chapter of the American Cancer Society held in St. Joseph. His subject was "Exfoliative Cytology." On April 3, Dr. Leeper addressed the St. Joseph Kiwanis Club and Buchanan County Chapter of American Cancer Society in St. Joseph on the subject of "What Is Cancer?" Dr. Leeper served as local chairman for the arrangements and moderator for the April 12 morning session of the meeting of the Regional Meeting of the College of American Pathologists held April 12 and 13 in Columbia. A seminar was held on Medical-Legal Aspects of Pathology.

Dr. Vincent P. Perna, instructor in pathology, and Mrs. L'nore Wells and Mrs. Betty Wagnon, medical technologists, attended a workshop in Spectrophotometry using the Coleman Jr. Spectrophotometer on April 13 to 16 in St. Louis. Calibration of Cyan methemoglobin method for use in clinical Hemoglobinometry was carried out by all participants.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, spoke at a meeting sponsored by the American Academy of General Practice in Washington, Missouri, on April 4. His subject was "Obesity in Children." This was one of a series of postgraduate lectures. On April 9, Dr. Jackson was the guest lecturer at a meeting of the St. Louis Pediatric Society held in St. Louis. Dr. Jackson spoke on "Diabetes Mellitus in Children." Approximately 200 attended this meeting.

A special meeting was held by the American Medical Association Food and Nutrition Council in New York City on April 11. Dr. Jackson attended as a member of the Council which met with a committee from industry to discuss use of vitamins. On April 13, Dr. Jackson attended the Borden's Symposium. This was the 100th meeting of the Borden Company and members attending were by special invitation. The progress in Nutrition Research during the past 100

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years was reviewed at this time. Dr. Jackson attended the Advisory Committee meeting of the National Vitamin Foundation on April 14 in Philadelphia, Pennsylvania. The committee met for the purpose of reviewing research grants. Dr. Jackson also met with the American Board of Nutrition in Philadelphia, Pennsylvania, on April 14 at their request for election to membership. On April 15, Dr. Jackson attended a meeting of the American Institute of Nutrition held in Philadelphia, Pennsylvania. Scientific sessions were held on various phases of nutrition. On April 16, Dr. Jackson went to Western Reserve University in Cleveland, Ohio, to review a diabetic grant and research project with project directors.

Dr. B. A. Westfall, professor and chairman of the Department of Physiology and Pharmacology, Dr. W. S. Platner, professor, and Mr. Don H. Blount, assistant instructor, attended a meeting of the Federation of the Societies of Experimental Biology and Medicine held in Philadelphia, Pennsylvania, from April 14 to 19. Dr. Blount presented a paper at the Federation meetings on the "Effects of Cardiac Work on Glycogen Fractions of the Heart." Approximately 6,000 attended this meeting.

Dr. Rodman Kabrick, assistant professor of clinical psychology, attended a meeting of the International Congress for Exceptional Children held in Kansas City on April 10. Dr. Kabrick participated in section meetings on recent research on mental retardation. On April 15, Dr. Kabrick spoke at the meeting of the Boone County Association for the Mentally Retarded in Columbia. The subject which he discussed was "Psychological Problems of Mental Retardation."

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, attended a meeting of the Knoll Memorial Hospital Board in Bethany and gave a talk on "The Development of the University of Missouri School and Its Relationship With the Rural Practice of Medicine." Approximately 88 attended this meeting.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, spoke to a sectional meeting of the American College of Surgeons on "Facts and Fallacies in Cardiac Resuscitation" at Salt Lake City, Utah, on March 17.

On April 11, Dr. Samuel P. W. Black, associate professor of surgery (neurosurgery), attended a meeting in St. Louis of the Washington University Annual Neurology-Neurosurgery Conference which was in honor of Dr. George Bishop and Dr. James O'Leary of Washington University.

Dr. Kenneth K. Keown, professor of anesthesiology, attended a meeting of the Missouri Society of Anesthesiologists in St. Louis on March 30 where he served as panel moderator for a discussion on "Balanced Anesthesia." On April 10, Dr. Keown visited the University of Texas, Southwestern Medical College, Parkland Memorial Hospital, Dallas, Texas, where he gave a presentation on "Physiological Selection of Patients for Cardiac Surgery." On April 12 and 13, Dr. Keown attended the meeting of the Los Angeles County Medical Association in Los Angeles where he gave the following presentations: "Physiological Significance of Cardiac Catheterizations," "Clinical Significance of Respiratory Studies," and "Principles of Mechanical Ventilators."

Dr. Philip Hitchcock, assistant professor of anesthesiology, attended the meeting of the International Anesthesia Research Society in New Orleans, Louisiana, March 24 to 27. On March 30, Dr. Hitchcock attended the meeting of the Missouri Society of Anesthesiologists in St. Louis. On April 14 to 18, Dr. Hitchcock attended the Federation Proceedings in Philadelphia, Pennsylvania, and read a paper on "Intravenous Xylocaine to Be Used in Cardiac Surgery."

Gifts and Grants

Dr. Philip Hitchcock, assistant professor of anesthesiology, has been awarded a grant by the Abbott Laboratories Scientific Divisions of North Chicago, Illinois, to be used for the following purpose: "The Control of Cardia Arrhythmias During Cardiac Surery With Lodocair."

New Appointments—School of Medicine

Dr. Helen Yeager has been appointed clinical associate in pediatrics effective July 1, 1958. Dr. Yeager is in private life Mrs. Horace Thomas of Columbia. Dr. Yeager received her M.D. in 1943 from Washington University. She is also acting as consultant at the City Clinic in Columbia.

Dr. Felix Torres has been appointed assistant instructor in surgery and first year resident in surgery for a three months term coming from Missouri Baptist Hospital in St. Louis where he has been a resident.

SAINT LOUIS UNIVERSITY

Meetings

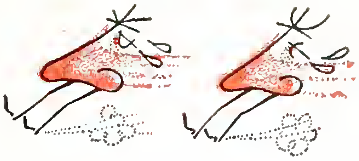
Dr. Henry Pinkerton, professor of pathology and director of the department, Saint Louis University School of Medicine, delivered a short course on "The Morphology and Recognition of Viral Inclusions" before the 52nd International Academy of Pathology meeting at the Hotel Statler in Cleveland, Ohio, Monday, April 21. He lectured on the recent advances in several viral infections and gave a general review in recent progress of the multiplication of viruses and their relation to cancer.

Dr. Pinkerson also attended the meeting of The American Association of Pathologists and Bacteriologists held in Cleveland April 24 to 26. Dr. Joseph P. Wack, senior instructor in pathology and Dr. John P. Wyatt, professor of pathology and associate director of the department delivered a paper titled "The Role of the Vertebral Venous Plexus in the Dissemination of Labelled Blood Clots."

Dr. Normal E. Melechen, senior instructor in microbiology, represented the School of Medicine at the Symposium on Genetics in Medical Research held at the University of Wisconsin April 7 to 19. Dr. Melechen also delivered a scientific paper before the 58th General Meeting of the Society of American Biologists on April 27. He spoke on virus infected cells treated with chloromycetin. Other participants from the department were: Drs. Sotiros D. Chaparas, assistant in microbiology, and Dr. R. Walter Schlesinger, director, department of microbiology, who delivered a paper on the new assay method of cultivating toxoplasma, and Dr. Karl G. Lark, senior instructor in microbiology, and Mrs. Karl G. Lark, research assistant and graduate student in microbiology, who presented two papers on studies utilizing amino acids.

A number of the medical faculty delivered papers before the Federation of American Societies for Experimental Societies which met in Philadelphia April 14 to 18. Participants and the titles of their scientific

running noses . . .



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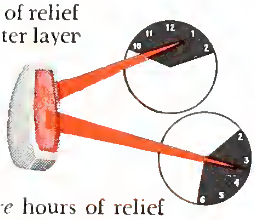

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presentations were: Dr. Alrick B. Hertzman, director, department of physiology, "Progressive Failure in Temperature Regulation During Dehydration"; Dr. Xavier J. Musacchia, associate professor of biology, "Water Content in Turtle Tissues"; Dr. Edward A. Doisy, Jr., associate professor of internal medicine, and M. W. Yin, W. M. Fogarty, Jr., and W. H. Doty, graduate fellows, "Production of Acids I and II in Rats on Highly Purified Rations"; Dr. Sidney A. Thayer, professor of biochemistry, S. L. Hasia, Fred R. Hill and Dr. William H. Elliott, associate professor of biochemistry, "Bile Acids, Structure of Acid IV and other Isomeric 6,7-Diols"; Dr. Edward A. Doisy, Senior, director, department of biochemistry, and R. Ratliff, P. D. Ray, J. T. Matschiner and W. H. Doty, graduate fellows, "A New Metabolite From Deoxycholic Acid." Also attending the meeting were: Dr. Maurice Green, assistant professor of microbiology; Dr. Lars Kjellen, research associate, and Dr. Thomas M. Stevens, research fellow.

Dr. Francis X. Paletta, assistant professor of clinical surgery, attended a meeting of the Society of Head and Neck Surgery April 7, 8 and 9 in Baltimore where he gave a paper to the Johns Hopkins Group on "Cancer of the Lip."

Representatives from the Anatomy Department who attended the American Association of Anatomists Program of the Seventy-First Session held in Buffalo, New York, last month were: Dr. Kermit Christensen, acting director of the department; Dr. William F. Alexander, associate professor of anatomy, Dr. Calvin A. Richins, associate professor of anatomy and Dr. Paul A. Young, assistant professor of anatomy.

The fourth in a series of scientific sessions sponsored by the departments of the School of Medicine in observance of Firmin Desloge Hospital's Silver Jubilee was held April 28 in Miller Hall of the hospital.

Participants and the topics of their papers were: Drs. D. Elliott O'Reilly, senior instructor in orthopedic surgery, and Peter G. Danis, professor of clinical pediatrics, "Cerebral Palsy"; Dr. Ralph K. Earp, assistant professor of clinical orthopedic surgery, "Scoliosis"; Dr. Maurice B. Roche, assistant professor of clinical orthopedic surgery, "Osteoarthritis of Spine"; Dr. Robert M. O'Brien, chairman, department of orthopedic surgery, "Pigeon Toes"; Dr. Robert M. O'Brien, chairman, department of orthopedic surgery, and Dr. Jack C. Tippett, "Congenital Dislocation of Hip" and Dr. Harold A. Sofield, professor of orthopedic surgery, Northwestern University, "Intramedually Fixation of Fractures." The fifth in the lecture series will be sponsored by the department of surgery September 17.

Medical Education Week

The Saint Louis University School of Medicine joined the 83 medical schools of the nation in the observance of National Medical Education Week April 20 to 26. Dr. James W. Colbert, Jr., Dean, School of Medicine, and Dr. Oliver H. Lowry, Dean, Washington University School of Medicine, were cochairmen of the week. The week was proclaimed by President Eisenhower, Governor Blair and Mayor Tucker, calling attention to the key role played by medical education and the medical schools in the promotion and maintenance of national health and security. Saint Louis University medical faculty participated in five television shows held in conjunction with MEW. Dr. Francis X. Paletta, assistant professor of clinical surgery, wrote and appeared in a drama on medical education telecast on KETC-TV April 18. Dr. Armand E. Brodeur, assistant dean, appeared in the television play. Dr. G. O. Broun, director, department of internal medicine, and Dr. James E. Lewis, associate professor of surgery, appeared in a show titled "Ask Your Doctor," sponsored by the St. Louis Medical Society, which was telecast over KTVI-TV. Dr. James G. Janney, Jr., associate professor of clinical medicine, appeared on "Look, Listen and Learn," a show telecast over Station KMOX-TV, April 25. The show was moderated by Dr. James P. Murphy, State Chairman of Medical Education Week. James McCool, a senior at the Saint Louis University School of Medicine, discussed his medical training on "Coffee Break," a KTVI-TV show telecast April 21. Dr. C. Rollins Hanlon, director, department of surgery, spoke on "Academic Medicine" at a special orientation meeting titled "After Formal Training, What Next?" held at the St. Louis Medical Society April 22. Junior and senior medical students, interns, residents and fellows at St. Louis hospitals and their wives attended the meeting.

Missouri Division of Health

(Continued from page 566)

son County Society. Some outstanding advantages summarized from this study are:

1. Multiple screening has been demonstrated to be an effective method of health education and its public relations value has great merit.
2. Multiple screening programs are an aid in making people health conscious. They seem to stimulate the desire for regular check-ups by their physicians.
3. Pooling of results of mass survey studies give invaluable information concerning incidence and prevalence of disease in population.
4. As a program of prevention, multiple screening has caused a large number of apparently well persons who were not aware that they might have a progressive disease to consult their physician.
5. Multiple screening is an attempt by the medical profession to make more adequate medical care available to more persons through their family physician.
6. Multiple screening clinics are an effective weapon against the proponents of socialized medicine. The program can be controlled by the local medical society.
7. Multiple screening exams are flexible. They can be adjusted to or modified to fit specific groups under consideration and resources that are locally available.

All screenees will choose a physician, if they already do not have one. It will be his responsibility to evaluate positive finding.

Similar procedure will apply to the dental phase of the clinic. The screenee will receive a dental inspection at the clinic.

Missouri Medical Review

(*Continued from page 560*)

journals cover the period from 1909 to 1932. In addition Dr. Austin gave a number of old medical volumes dating back as far as 1838. These old books were from the library of Dr. Austin's grandfather, Dr. John S. Williams, the first physician to locate in Chillicothe.

The Kansas City Urological Society has elected the following officers for the ensuing year: President, Dr. Oscar Davidson, Kansas City, Kansas; vice president, Dr. Julius Frischer, Kansas City, Missouri; secretary, Dr. Irwin S. Brown, Kansas City, Missouri.

Dr. Edgar Allen, Columbia, dean of the University of Missouri School of Medicine, was the guest of the Kansas Alpha Chapter of the Alpha Omega Alpha at the Bell Memorial Hospital, Kansas City, Kansas, May 12. He delivered an address on "Recent Development in our Knowledge of Reproduction."

Dr. Dudley S. Conley, Columbia, professor of surgery in the University of Missouri School of Medicine, has been appointed dean of the school to succeed Dr. Edgar Allen who has tendered his resignation to become effective at the beginning of the next school year. Dr. Conley became a member of the faculty of the University School of Medicine in 1919, going there from the faculty of Columbia University College of Physicians and Surgeons from which he had received his medical degree in 1906. Dr. Allen has resigned to go to the faculty of the Yale University School of Medicine. This year will complete his tenth year at the University of Missouri.

TEN YEARS AGO

Lauren V. Ackerman, M.D., Columbia, spoke at the Marquette University School of Medicine, Milwaukee, on April 14. Juan Regato, M.D., Columbia, spoke at the Foundation of Research Treatment of Carcinoma in Santa Fe, New Mexico, under the auspices of the American Cancer Society, at a meeting April 12 to 17. The Ellis Fischel State Cancer Hospital, the American Cancer Society, and the Missouri Division of the American Cancer Society sponsored a dinner meeting in Columbia on May 27 at which C. D. Haagensen, M.D., New York, spoke on "Carcinoma of the Breast."

The following is quoted from the *Bulletin of the St. Louis Medical Society* of April 23. "The strongest argument against socialized medicine is not the enormous drain on the taxpayers it would entail, important as that is. It lies in the fact that the profession of medicine, like the practice of the arts and higher crafts, is almost entirely dependent on individual ambition, ability and incentive for progress. The individual must be supreme. One of his chief assets is the right to experiment in an atmosphere of freedom. He must be ready to intelligently deal with the new and the uncharted. He cannot be bound by a set of inflexible rules. When the state runs everything, a man's politics are all important. That, and his ability to earn favoritism from the bosses, determine the kind of job he gets."

Thirty physicians from Caldwell, Carroll, Daviess, Grundy, Harrison, Linn, Livingston, Mercer and Ray Counties attended a dinner meeting at the Strand Hotel, Chillicothe, on April 15.

A dinner meeting of physicians from Lincoln, St. Charles and Warren Counties drew an attendance of twenty-six physicians and guests at the Southern Air, Wentzville, May 4. A program committee composed of one physician from each of the three counties was appointed to arrange for future joint meetings. The next meeting is scheduled for September.

The St. Louis County Medical Society held its regular meeting on March 10, at 8:30 p.m. at the Health Center, St. Louis County Hospital, Clayton. On motion of Dr. Steubner, seconded by Dr. Rosenberg, the Society delegates to the Missouri State Medical Association were instructed to bring before the meeting the problem of the reported occupancy of approximately 80 per cent of Veteran Administration hospital beds by nonservice connected cases with the aim of taking all possible steps to restrict these hospitalization privileges to those individuals actually unable to pay for private medical care. The motion passed.

DEATHS

Dixon, Charles H., M.D., Fulton, a graduate of Northwestern University School of Medicine, Evanston, Illinois, 1938; member Callaway County Medical Society; aged 46; died March 31.

Webb, Lewis M., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1925; member St. Louis Medical Society; aged 62; died April 2.

Kampschmidt, A. W., M.D., Bethlehem, Pennsylvania, a graduate of University of Missouri School of Medicine, 1906; member Boone County Medical Society; aged 82; died April 7.

Allen, Sylvia, M.D., Kansas City, a graduate of Columbia University College of Physicians and Surgeons, New York, 1926; member Jackson County Medical Society; aged 66; died April 15.

Parish, Isaac N., M.D., Freeman, a graduate of Beaumont Medical College, St. Louis, 1902; member West Central Missouri Medical Society; aged 82; died April 15.

Across Missouri

(Continued from page 556)

Formerly, membership was open to anyone joining through a group such as a business concern. But there was no provision for people to join on an individual, non-group basis after they reached 60. The announcement was made by Dr. Walter S. Sewell of Springfield, president of MMS and former president of MSMA.

"Advances in medical science," he said, "have both increased the average length of life and furnished better means of treatment for the diseases of older people."

These advances, he explained, made it imperative that the medical profession "should take the lead to provide that protection."

The St. Louis Blue Cross also offers increased hospital benefits for certain ailments to industrial groups meeting minimum enrollment requirements for basic coverage.

The program will provide full benefits for 70 days per confinement for nervous and mental disorders, tuberculosis, venereal, alcoholic and drug diseases, according to Elmer F. Nester, executive director.

For a small additional charge, members of industrial groups may extend the benefits to a full 70 days per confinement. Benefits were limited to 14 days in a membership year under standard plans and 30 days in a 12-month period under the preferred comprehensive plan.

Missouri's present aid-to-blind program would be made permanent, under legislation introduced in Congress by Rep. Thomas B. Curtis, St. Louis County Republican.

Missouri and Pennsylvania are the only states presently working under a law that allows them a more liberal aid-to-the-blind program without being penalized in the amount of federal aid received by blind persons. The present bill is due to expire June 30, 1959.

"This bill, if enacted into law, would simply restore an important states right—the right to provide at state expense a more liberal program of aid to the blind than the federal government chooses to allow," Rep. Curtis explained.

William A. McDonnell, St. Louis banker, is the new president of the United States Chamber of Commerce.

He made an eloquent plea for continued belief in America's free enterprise system during this recession as he took office.

"In such times, liberal thinking theorists are quick to recommend major surgery when perhaps the patient needs only gentle treatment and understanding and a chance for its natural recuperative powers to restore it to health," he declared.

Mr. McDonnell, the first banker to head the United States Chamber in over three decades, is chairman of the board of the First National Bank.

Washington

(Continued from page 554)

cuperating from the flu when he resigned. He is former treasurer of the Eastman Kodak Company and was undersecretary of the Treasury before taking over his present post in 1955.

The new secretary, 53, has spent virtually his entire adult life as an educator and government official. A former Republican member of the Civil Service Commission, he now is president of Ohio Wesleyan University and formerly was head of the federal Office of Defense Mobilization.

Mr. Flemming also taught three years at American University in Washington and worked four years for the present *U. S. News and World Report* magazine.

The 12-year-old Hill-Burton program appears to be facing threatening shoals. Hearings were to be scheduled to explore the law's language on "separate but equal" facilities. Committee chairmen of the health and science subcommittee of the House Commerce Committee is Rep. John Bell Williams, Mississippi Democrat.

Another Southern Democrat, Rep. Olin E. Teague, has written the President asking if he approved the Budget Bureau's compelling the Veterans Administration to withdraw about 5,000 beds from use. Rep. Teague is chairman of the House Veterans Committee.

Representative Siler, Kentucky Republican, would authorize outpatient treatment by the VA for any veteran, whether the condition is service-connected or not, if the veteran is receiving a pension or compensation. Also the VA would be authorized to reimburse any such veteran for emergency outpatient expenses incurred at a non-VA hospital.

The health subcommittee of the House Interstate Committee has concluded hearings on bills calling for federal construction grants to medical schools. Pending is the major question of whether federal funds should be denied where segregation is practiced.

Among the many witnesses was Dr. Aims C. McGuinness, special assistant to retiring HEW Secretary Folsom. Dr. McGuinness said many schools are outmoded in their physical plants, plus needing lots of replacements.

One of the key points in the discussion was the controversial provision that would allow schools

(Continued on page 644)

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*Report on file in offices of Health-Mor, Inc., 203 N. Wabash Ave., Chicago 1, Ill.

TUBERCULOSIS ABSTRACTS

The Practical Value of the Tuberculin Test

By Floyd M. Feldmann, M.D., Pediatrics, Feb. 1958.

The tuberculin test has long been accepted as a simple and highly specific test for the presence of tuberculous infection, but its possibilities and its limitations tend to be overlooked. Studies done in recent years by the World Health Organization in connection with BCG vaccination programs, and observations made by the U. S. Public Health Service and others have provided valuable information, but there is still much to be learned.

Significance of Dose of Tuberculin. There is a tendency to think of the tuberculin reaction as an "all or none" phenomenon, although every pediatrician has learned that there is a wide range of tuberculin sensitivity in any group tested. Usually a tuberculin test is called positive or negative on the basis of size of reaction. If a Mantoux test is done, the indurations larger than five or six millimeters in diameter are arbitrarily called positive, but there are many smaller than this which represent some degree of sensitivity. Are these people with just a little sensitivity infected with tubercle bacilli? Undoubtedly some are but there is now good evidence that many represent a cross sensitization with other antigens. Studies now in progress may reveal the nature of the antigen or antigens able to produce some tuberculin sensitivity.

These findings give additional emphasis to an earlier study with graduated dosage of PPD which showed that in tuberculosis patients extremely small doses produce no reactors but with a gradual stepping up of the PPD strength an increasing percentage was positive until the dose of 0.0001 mg. was reached. At this point practically all persons with tuberculosis had a reaction of five millimeters or more. If the dose was further increased reactions were obtained in large numbers of children who were probably not infected. This with other studies indicates that a standard dose of 0.0001 mg. of PPD is satisfactory for most purposes.

The size of the tuberculin reaction may also be of diagnostic and prognostic significance. Recent preliminary studies (unpublished) at the Phipps Institute in Philadelphia indicate that the size of the tuberculin reaction is correlated with the probability of active tuberculosis; the bigger the reaction, the more likely it is that active disease is present.

Effect of BCG on Tuberculin Test. If a child has a positive test when first seen by the pediatrician, it will be important to know whether BCG has been given or or not. The reaction may be a result of the BCG inoculation. A positive test should lead to a search for tubercle bacilli if there is reason to suspect a virulent infection. Some children do acquire serious tuberculosis disease in spite of a BCG vaccination.

Chemoprophylaxis in Tuberculin Positive Children. Isoniazid prophylactic treatment of tuberculin reactors to prevent the subsequent development of active disease has been advocated frequently in recent years. Perhaps studies now in progress will provide more precise indications for chemoprophylaxis. At this time, however, opinion is divided and the physician will have to use his best judgment based on such things as recency of infection, the age of the child, the size of the tuberculin reaction, the presence of any lesions on X-ray, the presence of predisposing conditions such as diabetes, and the future exposure to infection. Current investigations have confirmed the considerable risk of future disease in tuberculin reactors.

Tuberculin Testing in Community Case Finding. Tuberculin testing in private practice will pay an extra dividend in community tuberculosis control by providing leads to active cases which might escape detection otherwise. If the test is positive in a young child, the infection must be recent and its source is likely to be an active case among his close associates. In older children the source of infection may be more remote. The size of the reaction is important here too. Not only are those with larger reactions much more likely to have active tuberculosis, but higher rates of tuberculosis are found among their contacts. The physician can be of help to public health authorities by insisting that all associates of tuberculin reactors receive adequate examination.

Tuberculosis Testing as an Index to Tuberculosis Prevalence. The tuberculin test is a relatively simple and inexpensive procedure for determining infection rates in groups of children and adults. If these groups are retested at intervals, trends in the rates of new infection can be detected. It is quite clear from the evidence now available that infection rates have dropped markedly in the last few years in the United States. The need for more accurate measurement of tuberculin sensitivity is increasingly apparent. The only quantitative procedure now available is the Mantoux or intradermal test. The method and material used in the test has been described often and need not be repeated.

Tuberculin Testing Schedule. A practical age schedule for tuberculin testing must always be a compromise. It seems to be common practice to test at least once each year as long as there is no reaction, substituting annual X-ray examination if the test becomes positive. Finding even an occasional new infection should be worth the little effort it takes in view of the risk to the child of future serious complication and the effectiveness of therapy.

If school children are being tested, the grades tested will depend somewhat on the number of new infections expected per year. In a low rate area it may be sufficient to test beginning students in kindergarten or the first grade, children about to leave elementary school and the last year in high school. In a high rate area it may be worth while to test all grades every year. Such group tuberculin testing programs must be carefully planned so the essential follow-up of contacts will not be neglected and to provide for a critical evaluation at the end.

Tuberculin testing of children cannot take the place of the established public health program for tuberculosis control. Isolation and treatment of infectious patients, supervision of inactive cases, examination of contacts of active cases, x-ray screening of high rate groups, and programs to improve general public health are basic to any organized attack on the disease. However, routine tuberculin testing by all physicians coupled with well planned group testing of school children and others in a community can provide additional information useful for a more direct attack on the disease with the present effective therapeutic tools.

Issued by the National Tuberculosis Association.

BOOK REVIEWS

BATTLE FOR THE MIND: A PHYSIOLOGY OF CONVERSION AND BRAIN-WASHING, by William Sargant. Doubleday & Company, Inc., Garden City, New York. 1957. Price $4.50.

The book begins with a description of Pavlov's experiments in which conditioned reflexes were produced in dogs who were then subjected to painful conflict situations carried on to the point of "transmarginal inhibition" of the learned responses. This inhibition amounted to an experimentally induced neurosis, in the final phase of which the dog responded to stimuli in exactly opposite ways to those he had learned. Sargant then uses this mechanism to explain diverse phenomena such as combat neuroses, sudden religious conversions, brain washing for political conversions, electroshock therapy, psychoanalysis and others. One example is the revival meetings with hysterical emotional outbursts of confession of sin followed by collapse and a conviction of being saved by a new faith. Another example is the collapse of debilitated prisoners who, after prolonged fearful interrogation, may finally confess to anything and even temporarily believe it.

The author's thesis is that the same basic Pavlovian mechanism is operating in all these various methods of changing a person's mental outlook. However, his attempt to apply it to these various phenomena is sometimes strained, and it seems the least plausible when he tries to apply it to psychoanalysis. Actually a well done psychoanalysis is just the opposite of brain washing. The author does not seem to realize that a psychoanalytic treatment can be performed in such a way that there is a minimum of distortion by the analyst's own ideas and the optimum conditions are achieved for finding out what is truly going on in the patient's unconscious, bringing it to awareness slowly without overwhelming the patient. The author's examples of psychoanalytic treatment are actually examples of mistakes made by the analysts.

The Pavlovian mechanism is used in a more plausible manner to explain the phenomenon of brain washing in which the prisoner is made to reverse his original convictions just as Pavlov's dogs reversed their responses in one phase of transmarginal inhibition. E. H. K.

A TEXTBOOK OF HISTOLOGY, by Alexander A. Maximow, Late Professor of Anatomy, University of Chicago; and William Bloom, Professor of Anatomy, University of Chicago. With 1082 Illustrations, 265 in Color, on 631 Figures. Seventh Edition. W. B. Saunders Company, Philadelphia. 1957. Price $11.00.

This is one of the classics originally compiled by Alexander Maximow and his associate William Bloom, new completed and appearing in this seventh edition under the supervision of William Bloom and various colleagues who worked out specific details in various departments of the book. The text is excellent and so are the illustrations. In the illustrations are many electron microscopic photographic plates which lend additional value to the reading of the text. This book has always been famous for its detailed description of the blood and blood forming organs and this seventh edition is in no way disappointing in this department.

The book follows the usual orders of events in a discussion of histology. It first has a good discussion of protoplasm and the cell; next, epithelium; then the famous chapter on blood and blood cell formation and destruction; connective tissue and cartilage and bone all are similarly illustrated by a remarkably well-written text. Muscular tissue, nervous tissue and blood vascular system are fully discussed. This, with a chapter on the lymphatic system, completes the blood circulation part of the book.

The spleen, thymus, glands, hypophysis, thyroid gland, parathyroid glands, adrenals and the pineal body are fully gone into. A discussion of the anatomy of the skin is thoroughly done. The oral cavity and associated structures are described in Chapter 21. In Chapter 22 the teeth are taken up, followed by a description of the esophagus and stomach, intestines, then the liver, bile ducts and gallbladder. This is followed by the pancreas, the respiratory system and urinary tract in Chapter 28; the male genital system in Chapter 29 and the female genital system in Chapter 30. There is a special chapter on the mammary gland and one on the eye and another one on the ear, followed by the Index.

This seventh edition well rounds out a study of histology. It is not only a good book for the student of medicine but will serve as a refresher to practitioners who want to brush up on their old knowledge of histology. R. B. H. G.

THE CARE OF THE EXPECTANT MOTHER. Josephine Barnes, M.A., D.M. (Oxon.), M.R.C.P. (London), F.R.C.S. (England), F.R.C.O.G., Assistant Obstetrician and Gynecologist, Charing Cross Hospital and Elizabeth Garrett Anderson Hospital; Surgeon, Marie Curie Hospital. Philosophical Library, New York. 1956. Price $7.50.

This is a small monograph covering most phases of antenatal care, in an orderly but rather incomplete fashion.

Most nursing texts on obstetrics will cover the subject thoroughly and this reviewer can find little to recommend the expenditure of $7.50 for the book.

The chapter on maternity services in Britain, detailing the administrative set-up under the National Service Acts, was of special interest, particularly because of the extent and scope of these services.

From a scientific viewpoint the book has little to offer either the specialist or the generalist which he cannot find covered more fully in any standard obstetrical text. D.L.B.

THE PHILOSOPHY OF MEDICINE. William R. Laird, M.D. Education Foundation, Inc., Charleston, West Virginia. 1956. Price $3.00.

This miniscule volume develops the medical philosophy of a West Virginia surgeon who has apparently attained considerable prominence in his locale. His method is to relate, to the practice of medicine, the five subdivisons of philosophy—logic, esthetics, ethics, politics and metaphysics. His success in this in something less than overwhelming. For, while these are the thoughts and observations of an obviously good and sincere individual, they are largely concerned with such minutiae as the value of good case histories (logic) and of paintings on the walls of hospital rooms (esthetics) rather than with the many more fundamental philosophic considerations that daily challenge the intellect of the physician. A.I.D.

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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

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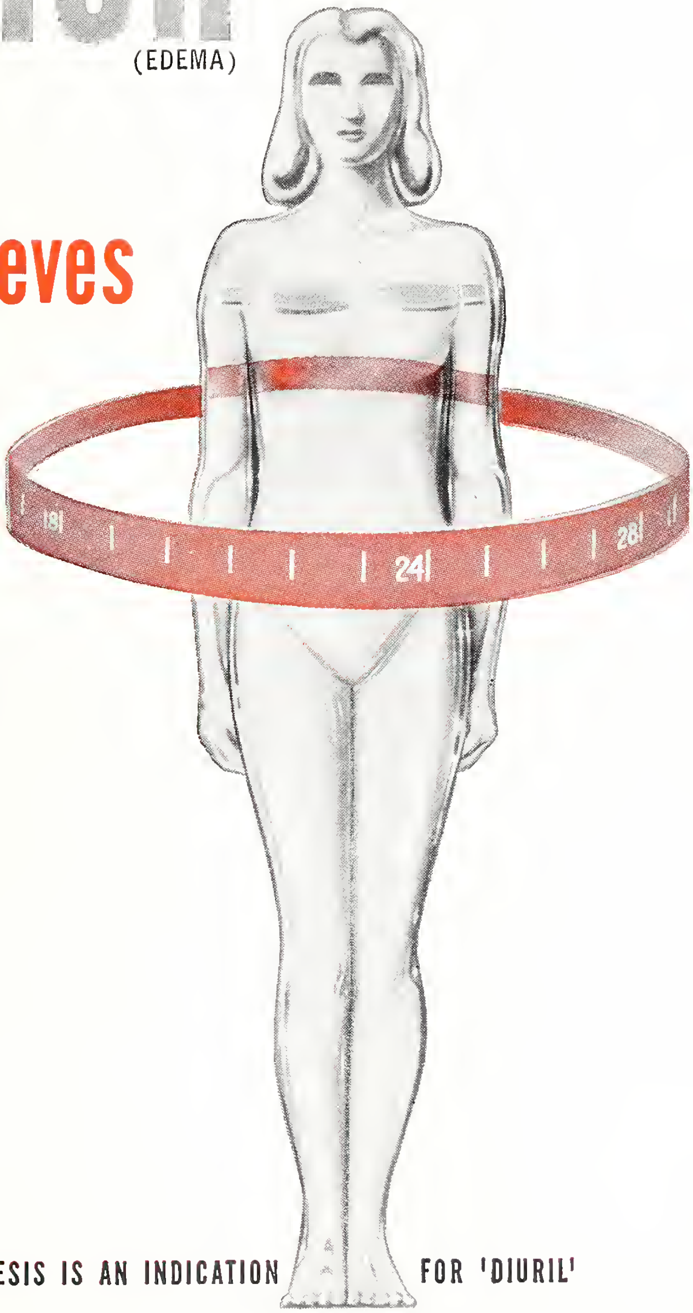

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Washington

(Continued from page 638)

as much as two-thirds in federal funds if they increased freshman medical school enrollment by 5 per cent. This was opposed by Surgeon General Burney, the final witness.

Dr. Wallace Sterling, president of Stanford University, said that the total money needed by the schools was beyond the reach of private philanthropy and local taxation. Dr. Vernon Lippard, dean of the Yale Medical School, predicted that by 1975 the United States would require another 2,000 graduates a year, compared with the present 7,000.

Their conclusion: legislation would be in the national interest and of great benefit.

A school health program costing 2 billion dollars over the next 10 years was included in a huge grants bill, introduced by Rep. Knutson, Minnesota Democrat.

His total bills calls for the expenditure of 100 billion dollars over the next 10 years for grants and loans to stimuate primary and secondary school construction, improve teaching and set up a nationwide school health program.

Half of the health fund would be apportioned among states on the basis of the number of school-age children in each state, and the other half would go as grants to finance research in child health and to establish pilot programs. The programs would be for the detection, control and treatment of children with health problems. The health section of the program would provide: medical, dental and mental health services to school children; establish school health clinics and mobile clinics for rural areas, and initiate programs to combat health problems prevalent among children.

As the session enters its final months, the Jenkins-Keogh bill appears to have made but little progress.

Last minute changes, of course, could advance its chances. Bills left on the docket as Congress closes die, but many of them will be introduced again in the 86th Congress convening next January.

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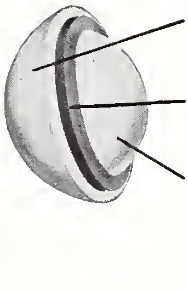

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 July, 1958 Number 7

Minutes of the House of Delegates

One Hundredth Annual Session

April 13, 14, 15, 16, 1958

St. Louis

Sunday Session

The first meeting of the House of Delegates of the One Hundredth Annual Session of the Missouri State Medical Association was called to order at 1:45 p. m., April 13, in the Crystal Room, Hotel Sheraton-Jefferson, St. Louis, with Joseph L. Fisher, M.D., St. Joseph, Speaker, presiding.

Officers, Councilors and Delegates present during the Annual Session follow:

Officers

President	Walter S. Sewell, Springfield
President-Elect	W. F. Francka, Hannibal
Secretary	E. Royse Bohrer, Jefferson City
Treasurer	Jerome I. Simon, St. Louis
Vice President	M. Pinson Neal, Columbia
Vice President	Joseph G. Webster, Kansas City
Vice President	Paul R. Whitener, St. Louis
Speaker of the House	Joseph L. Fisher, St. Joseph
Vice Speaker of the House	Oscar P. Hampton, Jr., University City

Councilors

1st District	Donald M. Dowell, Chillicothe
2nd District	B. L. Murphy, Hannibal
3rd District	R. O. Muether, St. Louis
4th District	Joseph C. Creech, Troy
5th District	Byron M. Stuart, Boonville
6th District	C. G. Stauffacher, Sedalia
7th District	Ralph Perry, Kansas City
8th District	W. W. Tillman, Springfield
9th District	J. H. Summers, Lebanon
10th District	Ben M. Bull, Ironton

DELEGATES

First District

Andrew	Forrest C. Long, Savannah
Buchanan	Joseph L. Fisher, St. Joseph
Buchanan	Lucien W. Ide, St. Joseph
Clay	Robert H. Dunham, North Kansas City
Clay	S. R. McCracken, Excelsior Springs
Clinton	John P. Mabrey, Plattsburg
Grand River	
Livingston	Charles M. Grace, Chillicothe
Carroll	E. W. Allen, Carrollton
Grundy	Charles H. Cullers, Trenton
Harrison	Albert F. Nibbe, Bethany
Linn	George Gary, Marceline
Nodaway-Atchison-Gentry-Worth	Henry C. Bauman, Maryville
Nodaway-Atchison-Gentry-Worth	Wallace Carpenter, Rockport
Nodaway-Atchison-Gentry-Worth	Frank B. Matteson, Grant City

Second District

Chariton-Macon-Monroe-Randolph	D. E. Eggleston, Macon
Chariton-Macon-Monroe-Randolph	F. A. Barnett, Paris
Chariton-Macon-Monroe-Randolph	Thomas S. Fleming, Moberly
Lewis-Clark-Scotland	P. W. Jennings, Canton
Marion-Ralls-Shelby	Robert J. Lanning, Hannibal
North Central	
Adair	J. J. Wimp, Kirksville
Knox	Francis Tarvydas, Edina

Third District

St. Louis City	A. W. Neilson, St. Louis
St. Louis City	A. F. Sudholt, Jr., St. Louis
St. Louis City	L. T. Furlow, St. Louis
St. Louis City	J. E. Byrne, St. Louis
St. Louis City	R. W. Kelley, St. Louis
St. Louis City	J. E. Von Kaenel, St. Louis
St. Louis City	E M. Cannon, St. Louis
St. Louis City	R. E. Funsch, St. Louis

St. Louis City	Durand Benjamin, St. Louis
St. Louis City	J. P. Eberle, St. Louis
St. Louis City	Walter Baumgarten, Jr., St. Louis
St. Louis City	S. M. Merenda, St. Louis
St. Louis City	L. H. Kohler, St. Louis
St. Louis City	Dean Sauer, St. Louis
St. Louis City	Frank McDowell, St. Louis
St. Louis City	J. C. Edwards, St. Louis
St. Louis City	Paul F. Max, St. Louis
St. Louis City	J. W. Thompson, St. Louis
St. Louis City	R. B. Bassett, St. Louis
St. Louis City	D. O. Burst, St. Louis
St. Louis City	F. G. Zingale, St. Louis
St. Louis City	W. T. Gunn, St. Louis
St. Louis City	G. L. Hawkins, Jr., St. Louis
St. Louis City	G. E. Thoma, Jr., St. Louis
St. Louis City	David N. Kerr, St. Louis

Fourth District

Franklin-Gasconade-Warren	John F. Pearl, St. Clair
Franklin-Gasconade-Warren	G. M. Workman, Hermann
Franklin-Gasconade-Warren	H. H. Schmidt, Marthasville
Jefferson	R. H. Donnell, Crystal City
Lincoln-St. Charles	P. T. Berry, Troy
Lincoln-St. Charles	L. R. McIntire, St. Charles
St. Louis County	E. B. Drescher, St. Louis
St. Louis County	R. C. Kingsland, Clayton
St. Louis County	W. H. Bailey, St. Louis
St. Louis County	Joseph B. Kendis, St. Louis
St. Louis County	James R. Meador, Clayton
St. Louis County	E. R. Brown, University City
St. Louis County	O. P. Hampton, St. Louis
St. Louis County	P. R. Whitener, St. Ann

Fifth District

Boone	M. Pinson Neal, Columbia
Boone	James C. Cope, Columbia
Cole	G. Donald Shull, Jefferson City
Cooper	G. W. Winn, Boonville
Howard	W. J. Shaw, Sr., Fayette
Miller	W. Logan Allee, Eldon
Moniteau	Richard B. Fulks, California
Montgomery	E. J. T. Andersen, Montgomery City
Morgan	J. L. Washburn, Versailles

Sixth District

Johnson	C. M. Lederer, Warrensburg
Fayette-Ray	F. A. Crozier, Richmond
Pettis	Alvin L. Lowe, Sedalia
Saline	R. C. Haynes, Marshall
West Central	
Bates	A. L. Hansen, Butler
Cass	O. B. Barger, Harrisonville
Cedar	R. L. Magee, El Dorado Springs
Vernon	R. W. Pearse, Jr., Nevada

Seventh District

Jackson	Philip L. Byers, Kansas City
Jackson	Kenneth C. Hollweg, Kansas City
Jackson	John F. Bowser, Kansas City
Jackson	Raymond B. Anderson, Kansas City
Jackson	Joseph C. Williams, Jr., Kansas City
Jackson	John A. Growdon, Kansas City
Jackson	Frederick H. Hartwig, Kansas City
Jackson	James R. McVay, Jr., Kansas City
Jackson	James D. Bennett, Kansas City
Jackson	Dillard M. Eubank, Raytown
Jackson	Hector W. Benoit, Kansas City
Jackson	Charles F. Grabske, Jr., Kansas City
Jackson	Russell D. Shelden, Kansas City

Eighth District

Dallas-Hickory-Polk	Olin A. Griffin, Buffalo
Greene	Stanley S. Peterson, Springfield
Greene	Kenneth E. Knabb, Springfield
Greene	John P. Ferguson, Springfield
Jasper	M. Foster Whitten, Carthage
Jasper	William T. McNew, Carthage
Ozarks	
Barry	Mary J. Newman, Cassville
Lawrence	Kenneth Glover, Mount Vernon
Stone	Fred L. Wommack, Crane
Newton	M. C. Bowman, Neosho
McDonald	J. J. Royce, Noel
Webster	T. M. Macdonnell, Marshfield

Ninth District

Mid Missouri	
Dent	B. J. Bass, Salem
Laclede	H. W. Carrington, Lebanon
Phelps	William R. Lytle, Rolla
South Central	
Howell	C. F. Callihan, West Plains
Oregon	C. W. Cooper, Thayer

Tenth District

Cape Girardeau	Milton Shoss, Cape Girardeau
Dunklin	W. D. English, Cardwell
Mineral Area	
St. Francois	H. M. Roebber, Bonne Terre
Iron	R. E. Harland, Ironton
Pemiscot	O. W. Cook, Caruthersville
Perry	J. J. Bredall, Perryville
Semo	
New Madrid	C. C. Reeder, New Madrid
Scott	W. O. Finney, Chaffee

The President, Walter S. Sewell, M.D., Springfield, delivered the invocation.

The Secretary, E. Royse Bohrer, M.D., Jefferson City, read the roll of delegates and alternates, which showed a quorum present.

James R. Meador, M.D., Clayton, gave a preliminary report of the Committee on Credentials.

R. O. Muether, M.D., St. Louis, reported briefly for the General Committee on Arrangements.

SPEAKER: The next order of business is the reading of the minutes of the previous meeting. These were published in the July 1957 issue of MISSOURI MEDICINE.

Registration opened at noon.

Upon motion, duly seconded, the minutes were approved as published.

The Speaker gave instructions to the delegates and appointed the following Reference Committees:

Drs. Rother, Randall and Pogemeier, St. Charles, and Dr. Gay, Jefferson City (center) register.

REFERENCE COMMITTEE ON RESOLUTIONS

Kenneth Glover, M.D., Mount Vernon, Chairman.
James R. McVay, Jr., M.D., Kansas City.
David N. Kerr, M.D., St. Louis.
Robert L. Magee, M.D., El Dorado Springs.
John P. Mabrey, M.D., Plattsburg.

REFERENCE COMMITTEE ON MEDICAL EDUCATION

Robert C. Kingsland, M.D., Clayton, Chairman.
F. A. Crozier, M.D., Richmond.
William J. Shaw, M.D., Fayette.
Joseph C. Edwards, M.D., St. Louis.
John A. Growdon, M.D., Kansas City.

REFERENCE COMMITTEE ON CONSTITUTION AND BY-LAWS

O. B. Barger, M.D., Harrisonville, Chairman.
G. W. Winn, M.D., Boonville.
F. A. Barnett, M.D., Paris.
Sam J. Merenda, M.D., St. Louis.
William T. McNew, M.D., Carthage.

REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

Paul F. Max, M.D., St. Louis, Chairman.
William H. Bailey, M.D., St. Louis County.
W. D. English, M.D., Cardwell.
Henry C. Bauman, M.D., Maryville.
T. M. Macdonnell, M.D., Marshfield.

REFERENCE COMMITTEE ON REPORTS OF OFFICERS

John P. Ferguson, Jr., M.D., Springfield, Chairman.
H. W. Carrington, M.D., Lebanon.
Roy Pearse, M.D., Nevada.
Milton Shoss, M.D., Cape Girardeau.
Forrest C. Long, M.D., Savannah.

REFERENCE COMMITTEE ON NECROLOGY

Philip L. Byers, M.D., Kansas City, Chairman.
Leonard T. Furlow, M.D., St. Louis.
George M. Workman, M.D., Hermann.
R. C. Haynes, M.D., Marshall.
M. Pinson Neal, M.D., Columbia.

Dr. Fisher, Speaker, presided at the House of Delegates.

Walter S. Sewell, M.D., Springfield, gave the President's Message as follows:

PRESIDENT'S MESSAGE

Mr. Speaker, Members of the House of Delegates: I want to thank you for the opportunity of serving as your president.

Even though I have been active for a long time in the affairs of organized medicine—in the Greene County Society, in this House of Delegates and for a good many years on the MSMA Council—the experience of this past year taught me something new and something important about what the Missouri State Medical Association really is. My talk is going to be mainly about that.

The year also gave me a new insight into what our Association could be. I am going to end up with a few remarks about that.

When I began my term of office, I told myself one of the main things I was going to do was discover just how Missouri doctors felt about their Association. For a great many years I had been hearing the same, old, sad song. The refrain was that most doctors were not really interested in what their Association was doing—most doctors did not read their Journal—most doctors did not attend their county society meetings—to say nothing of the state meeting—most doctors did not even read their mail. In short, most doctors did not give a damn about what organized medicine was doing —about the problems confronting the profession—and there was very little anybody could do about it.

Of course, I exaggerate a little. That's a speaker's privilege. But have not you— has not every one of you —heard something pretty much like this when you have gotten to talking with other doctors about medical society programs and activities?

Anyhow, I had heard it so long, I made up my mind the first thing I was going to find out was how true it was. Because you cannot be as busy in MSMA affairs, as I had been for so many years, without recognizing that these affairs are important to every single doctor in the state. The very nature of the practice of medicine depends in large measure on how we—through our Association—handle these problems. I just could not believe that so many doctors cared so little.

Dr. Sewell gave the President's Message.

So I made up my mind to find out. And by the time I got through I felt sort of like a mailman—like the fellows described in the inscription on the front of the New York Post Office—you remember, "Neither snow, nor rain, nor heat, nor gloom of night stays these couriers from the swift completion of their appointed rounds."

Well, I cannot say Ray McIntyre and I completed our rounds all that swiftly, but, by George, we completed them. We went into every corner of Missouri. We attended meetings of nearly all the local societies —though, thank Heavens, sometimes we got two or three societies together at one time. In any case, we came as close as we could to exposing ourselves, one way or another, to every doctor in Missouri.

We got to these meetings early—though it was sometimes tough to do—what with last winter's weather. And we stayed late. Sometimes it was nearly midnight before things broke up. I gave a talk on MSMA's organization and current problems, and it seemed to be well received at all meetings. But more important than my talking was my listening. That's how I came to have what is, I think, an unusual first-hand knowledge of just what the doctors of this state really think about their state medical Association.

But, before I come to what they think I'd like to say a word about how they feel. The welcome I got was the best evidence. Most of the doctors did not know me personally, but, almost without exception, they were glad to meet me and to welcome me as the president of their Association.

One group put on a formal affair and set Mrs. Sewell and me in a receiving line to meet every doctor and his wife.

I would like to say just in passing that wives make a lot of difference to the success of an occasion like this. They have just as keen an interest in what's going on to affect medicine as their husbands do—sometimes, maybe even more.

Anyhow, I can tell you that throughout this whole state I found doctors had a good warm, strong feeling of regard for their state Association and its president.

Now, as to what they had to say—as to what they thought—about MSMA and its program—Gentlemen, they had a plenty. And the impressive thing was they knew pretty well what they wanted. They were interested in the problems and activities of the state office. They were generally alert to what was going on. It looked to me as though they did read the Journal and even their mail!

I found that our home office through Tom O'Brien our executive secretary, Helen Penn, Ray McIntyre, Bill Logan, our new staff man, the girls in the office and Ed Schneider and Lemoine Skinner, our hard-working public relations men, have all been doing a great job. They have kept on top of every part of our big and complex program. And they have worked wonderfully with the officers and Council to keep the program close to the membership. This has been done not with only written communications, but by personal contact with member doctors, by attending local meetings, by helping to arrange programs, by taking part in committee meetings. (By the way, I do not think we've ever had a year in which our committees have had more work to do or done it better.) I want to say a special word of praise for Ray McIntyre, our Field secretary. I think he knows more doctors better than any man in the state, and there isn't a doctor who isn't his friend.

Even though many of the meetings I attended on my trips through the state were chiefly scientific sessions or called for local society business such as the election of local officers—the doctors everywhere were interested in having a direct message from MSMA. All of them, however, were eager to learn. And—as our discussions developed at these meetings and the doctors got the facts they wanted—they were strong and emphatic in expressing their opinions.

The real gist of what I found out about MSMA, then, is that the Association can succeed in winning the attention and the interest of doctors in all parts of the state in its problems and its program. I believe our success in this regard is increasing from year to year. The greater efforts we are making, through our systematic program of information to the profession, are bearing fruit.

I think, however, we still have a way to go. MSMA is not yet everything it could be.

We have to keep working at the job of bringing the Association and its program to the individual doctor. Everyone of us is so busy with his own practice and his own life as to make it very hard to find the time to be concerned with the problems of the profession and the health of the people in a broad perspective. Yet it is exactly this perspective we must think in if we are to represent medicine as it needs to be represented in these difficult times.

The House was well attended.

I say we must keep on working at the job of bringing MSMA closer to the doctor. I know we shall do this. Our ways of doing it are getting better every year—there are more communications, more meetings, more day-in-day-out effort to keep the channels of understanding open.

The recommendation I have to make is that we take a couple of further steps to improve our communications with our members. This step is to see that every year the membership at large has an opportunity to come face to face with the president and the key elected officials of the Association.

The staff can do a lot, the Journal can do a lot, mail can do a lot, our public relations people can do—and are doing—a lot, but there's nothing like the personal, friendly, intimate contact between each member doctor and those doctors who have been elected to positions of responsibility in the Association.

Now, I am not for one minute suggesting that every president ought to go the 10,000-mile circuit around the state that I have just finished. I do not think that's practical as a regular thing. Nor do I think it's necessary.

I would like to see, however, and I urgently recommend, that every councilor district have one definitely scheduled meeting a year to which the key officers of MSMA would be invited for the purpose of taking part in a discussion of Association affairs and policies and problems.

I believe 10 such meetings in the course of the year would not be an undue burden on the officers. And I know, from my own experience, that they would do a great deal to maintain the already high level of interest the doctors have for their Association. They would do much to foster the warm feeling of good will and good fellowship I discovered throughout the state. And, most important, they would contribute to the basic kind of understanding that is essential to the intelligent conduct of our discussion and determination of our policies.

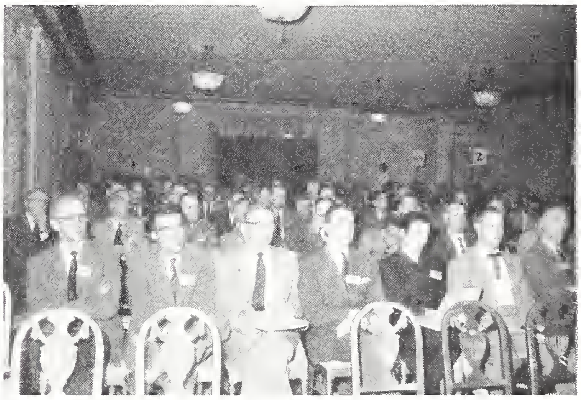
In addition to these major councilor district meetings devoted to consideration of MSMA affairs, I think each councilor should make it his personal responsibility to attend as many meetings of local societies in his district as he can possibly manage during the year.

If each member of the Council would make it a point to visit the home office and sit down for part of a day with Tom O'Brien and the people in the Skinner office, he would get all the help he needed in putting together a clear factual statement of the main points of the MSMA message he wanted to cover when he visited county societies in his district. Ray McIntyre or another of the staff in many cases would be able to go along to help tell the story and answer questions.

A program like this, supported by all the members of the Council, would do more than anything else to keep the Association in direct and constant touch with its members.

I do not feel I can end this talk without saying just a word about Missouri Medical Service—your Blue Shield plan—of which I shall have the honor of serving again next year as president. I think Blue Shield has made great progress during the last year. We have even greater plans for the future. Some of the details of what has been accomplished and what we hope to do will be presented this afternoon in the Supplementary Report of the Council.

All I want to say at this time is that we shall continue to do everything we can to make Blue Shield a better and stronger plan in the service of the public and of the medical profession. I count on having your help and support for Blue Shield in the year ahead.



Delegates from Councilor Districts sat together.

Gentlemen, I thank you for the honor you gave me in calling on me to be your president. I am more conscious of the honor at the end of my term than I was at its beginning. This is a great Association. The doctors of Missouri have made me proud of it—and of them—and a little of myself for being one of them.

The Speaker referred the President's Message to the Reference Committee on Reports of Officers.

W. F. Francka, M.D., Hannibal, presented the Recommendations of the President-Elect as follows:

RECOMMENDATIONS OF PRESIDENT-ELECT

Mr. Speaker, Members of the House of Delegates: It is not without something like anxiety that I speak to you today at the start of my term as president of the Missouri State Medical Association.

First, of course, I am conscious of how difficult it will be to follow my friend and predecessor, Walter Sewell, in the presidential office. Rarely, if ever, in the whole history of our Association, have we had a president who gave himself over so wholeheartedly to serving MSMA. During the last 12 months, Dr. Sewell has put the business of the medical profession in first place. He has pursued this business at the cost of real sacrifice in his practice and his family life. We all owe him a great debt, and I wish to express to him at this time our thanks and our gratitude. It is apparent that any man might well have some anxiety on being called upon to follow Dr. Sewell.

I have, however, a further and more profound reason for being anxious as I speak to you today—not only on my own account, but on the account of our Association and the medical profession. The problems that confront us are complex problems; many of the choices we have to make are difficult choices. It is not so much, however, the problems and the choices in themselves that concern me. My concern rather is for the way we as an Association shall go about defining our policies and making our choices.

I propose, in this brief talk this afternoon, to speak frankly about this underlying problem. It seems to me just as important and even more fundamental than the particulars of the specific questions the House of Delegates will consider in this historic 100th annual session. You will have these particulars in detailed reports that will come before you, in the deliberations of the reference committees and in background materials in your delegate's handbook.

At this time I wish to invite your earnest consideration of the actual functioning of our Association and of the spirit in which we conduct our discussions. I am concerned, in short, with basic, bed-rock things like mutual confidence, unity and morale. These things are equally as important as any particular policy we may arrive at. Unless we are strong in these fundamentals, we shall never be strong in the actual execution of our program, whatever that program may be.

Let me make it clear at the outset that I have no wish to be like Pollyanna in this matter. I am not suggesting that everything ought to be sweetness and light. I know there are serious and important differences of view within our membership regarding our approach to many of the problems that confront us. I recognize these differences are real and that the debate on them must of necessity be vigorous.

The plain fact is, however, that the issues that have come along to face us now go right to the roots of doctors' individual interests and principles. They are direct and pressing problems. And their solutions are by no means obvious.

It seems to me that the real origin of most of the problems that have arisen in recent years is to be found in the rapid increase in the number of third-party situations—situations in which Blue Shield, or a private insurance company, or some welfare fund, or some agency of government has come into the picture as the payer of some part of the costs of medical care. Without stopping to try to analyze which of these developments may have good elements and which are totally bad, who brought them on, or how or why some of them might have been prevented—I think I may say of them all alike that they affect, in some degree or other, the way every one of us conducts his practice.

It is not my purpose in this brief talk to try to discuss particulars. The members of the House will have plenty of such discussion before this session is over. It is, however, my purpose to emphasize the, perhaps, obvious fact that the trend of recent events has affected the individual doctor directly. It has affected the business side of his practice. It has affected his relationship with many patients.

The result has been to stimulate the individual members of MSMA to a keener interest in what the policy and program of the Association ought to be to protect the appropriate interests of individual physicians and of the profession. And the further result has been to bring a new kind of intensity and vigor to our discussions.

It is perfectly clear that there are differences of view within the profession as to the line our policy ought to take on specific questions. And when men differ on matters of importance, it is to be expected in a democratic organization that they will press their views as hard and effectively as they can. Let us recognize this frankly.

Dr. Francka gave the Recommendations of the President-Elect.

But let us recognize at the same time something even more important. The differences between us are nothing more than the differences of reasonable men who share a common over-riding objective. That objective is the preservation of the freedom, the effectiveness and the dignity of the medical profession in our state and in our country. When we come to policy particulars, some may advocate one course, some another—but there can be no doubt that the overwhelming majority are as one in their dedication to the freedom and well-being of medicine.

I want today to make a plea to every delegate—and to every member of the Association—to keep constantly in his mind and in his heart this over-riding unity among us. It is essential that we hold our debates within the bounds this unity imposes.

Our objective must always be to arrive, by full and fair democratic processes, at policies that have the informed and considered support of a majority of the membership. On this essential point, I should like to quote from our recent Past President Carl F. Vohs' address to last year's House:

"We ought not to make a basic policy decision without being very sure of the wishes of all the members. It is not enough merely to be technically and constitutionally correct. . . . In such cases it is far best not to take it for granted that the officers, the Councilors, or even the House of Delegates are always completely representative of the views of their constituents. Experience makes it clear that medical men, as individuals and as groups, have strongly held emphatic opinions on issues they rightly conceive go to the heart of their personal and professional interests. It is essential that every voice be heard before major policy is decided."

I quote this statement of Dr. Vohs because it is directly relevant to the recent history of major developments in our policy. It will be recalled, as one outstanding example, that the unanimous decision of this House in 1956 to endorse the service principle for Missouri Medical Service was so widely unacceptable to members in the St. Louis area that the House rescinded the action at last year's session. The latter decision was made in the light of a fuller understanding of the actual wishes of a large segment of the membership.

I have quoted Dr. Vohs' statement also because it fairly sets forth the reasoning followed by the officers and the Council during the last year to take directly to the membership by every feasible means the fullest possible background information relating to the policy choices open to the Association. The same practice has been followed in the preparations for this Annual Session. Every delegate, in the folder sent to him in advance, has the background of the principle matters the Council understood would come before the meeting. The decisions, gentlemen, are now going to be up to you.

Dr. Francka's daughters, as well as Mrs. Francka, were present for his installation.

Before I conclude and before the start of your actual deliberations, I have just one or two more points to emphasize.

The first point I wish to stress is that the policy-making responsibility in our Association belongs to this House.

Second, it remains the responsibility of the elected officers and Councilors of MSMA to see to it that the members at large and delegates in particular have the full and complete information that is essential if the determinations of the House are to be valid in the full sense of the word.

Third, the work of your officers and Councilors cannot be carried on without advice, assistance and hard work of a paid staff. I am certain I do not need to press the point that the staff is responsible to your elected officials. Speaking as one of these, I wish to say very clearly that MSMA has had the fullest measure of loyal, hard-working devotion from its staff people. I am confident we shall continue to have it.

Fourth and finally, I want to say again that it is absolutely essential to the attainment of our common objectives that we conduct our debates regarding policy choices in an atmosphere that is consistent with discussion among men who respect one another. There is no room for personalities, no room for narrow differences between city and country, between specialist and general practitioner, no room for the questioning of motives, no room for anything except honest, full and fair discussion of the merits of the choices before us.

We need, first and foremost, to continue to believe in one another, to believe in the essential unity that joins us. If we conduct our discussion in an atmosphere like this—if we are all earnestly interested in arriving at the fully understood consensus of a majority—I have no concern about the policy. Whatever it is, we shall pursue it with singleminded, loyal effectiveness.

And now, gentlemen, it's your job to discuss and determine the policies you wish to follow on the questions that will be brought before you.

The Speaker referred the Recommendations of the President-Elect to the Reference Committee on Reports of Officers.

The report of the Secretary, E. Royse Bohrer, M.D., Jefferson City, follows:

REPORT OF THE SECRETARY

On December 31, 1957, the official membership of the Association was as follows:

Status of Membership

Number of Members, January 1, 1957	3,716
New Members	205
Members Reinstated	2
Total	3,923
Members Dropped	55
Members Deceased	81
Members Transferred	88
Members Resigned	7
Total	231
Number of Members, December 31, 1957	3,692

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following officers:

Three Vice-Presidents to fill the expired terms of

M. Pinson Neal, M.D., Columbia; Joseph G. Webster, M.D., Kansas City; and Paul R. Whitener, M.D., Florissant.

Two Delegates and corresponding alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1958, of the terms of Durward G. Hall, M.D., Springfield; Alternate, Guy N. Magness, M.D., University City; and H. E. Petersen, M.D., St. Joseph; Alternate, J. Loren Washburn, Versailles.

The terms (two years) of the Councilors of the odd numbered districts expire this year:

D. M. Dowell, M.D., Chillicothe, First District; R. O. Muether, M.D., St. Louis, Third District; B. M. Stuart, M.D., Boonville, Fifth District; Ralph Perry, M.D., Kansas City, Seventh District; J. H. Summers, M.D., Lebanon, Ninth District. Delegates from these districts shall meet during the meeting, prior to the last day, and elect the Councilor for their District. The election shall be certified to the House of Delegates on a prescribed form which will be furnished. Lists of Delegates from the various districts will be available to the Councilors and may be checked for those present at the Registration Desk at the session.

The Annual Session will meet for four days, beginning Sunday, April 13, at 1:30 p.m., with a session of the House of Delegates, and closing Wednesday afternoon, April 16, with a final session of the House. The House will meet on Monday, April 14, at 4:30 p.m. All sessions of the House will be held in the Crystal Room of the Sheraton-Jefferson Hotel. Registration will be open on Sunday from 12:30 p.m. until 2:30 p.m., and from 8:00 a.m. until 5:00 p.m. on Monday and Tuesday, and from 8:00 a.m. until 12:00 noon on Wednesday.

The Annual Banquet in Honor of Past Presidents will be held on Tuesday evening, April 15, 7:30 p.m., in the Sheraton-Jefferson Hotel.

E. Royse Bohrer, Secretary.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Executive Secretary, Mr. Tom R. O'Brien, follows:

REPORT OF THE EXECUTIVE SECRETARY

The reports contained in this booklet and other published material describe the actions of the Council and standing and special committees of the Association. Either Mr. McIntyre, Mr. Bill Logan, our new executive assistant, or I attended all committee meetings and all of us were present at the Council meetings. The members of the Committees, the Councilors and Officers, and other members devoted a tremendous number of man hours to the problems of the profession last year.

The members of the office staff are devoted to your interests. I wish to thank each and every one of them for their extremely able assistance to me and the Association.

T. R. O'Brien.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Treasurer, Jerome I Simon, M.D., St. Louis, follows:

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement of the Association for 1957 which appeared in the March issue of Missouri Medicine. Since Delegates have had that issue of the Journal of the Missouri State Medical Association, the report is not repeated in these reports.

Jerome I. Simon, Treasurer.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Scientific and Postgraduate Work, James G. Janney, Jr., M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC AND POSTGRADUATE WORK

The program of the Annual Session is one part of the work of the Committee on Scientific and Postgraduate Work. The Committee met for the original draft of the program and has been in correspondence through the succeeding months. Based on the gratifying acceptance of the Instruction Courses at the 1957 Session, the Committee has arranged such courses for the 1958 Session for both Monday and Tuesday mornings. The Committee feels that the formal presentations on the program are each valuable and the subject matter is diversified so that something other than strictly scientific material is included. Panels and a Clinical Pathologic Conference are included. On Wednesday morning, other allied organizations were asked to furnish the program. The Committee feels that it is presenting a program that will have wide appeal and that will be of value to the members.

The Committee on Scientific and Postgraduate work met during the year to plan the program.

The Committee is pleased to report that more and more county medical societies are planning their programs for a six-month period in advance. Some are even planning programs for a year in advance. Definite advantages are gained by this procedure, such as, more choice of speakers, better program publicity, greater choice of meeting places and better prepared and delivered scientific presentations. The Committee urges all medical societies in the state to adopt, as far as possible, advance program planning.

The Committee has worked closely with the Education Committee of the Missouri Academy of General Practice in promoting scientific programs for many county and joint county medical society meetings over the state. Academy members, by attending such programs, in which the Academy Education Committee has a good part in developing the program, receive Category I postgraduate credit toward Academy membership requirements. This procedure promotes better attendance at county society meetings and therefore everybody gains.

The Postgraduate Medical Education Committee of the University of Missouri School of Medicine has been most helpful in providing speakers from the Missouri University Medical School faculty to meet many of these medical society program requests.

The Committee is cooperating with other committees of the State Association in bringing special programs before county societies. One example of such cooperation is with the Maternal Welfare Committee. That Committee is anxious to present the picture of maternal mortality over the state to the various societies. A second example relates to the efforts of the Association's Committee on Laboratory Medicine to present programs on "Office Practice of Cytology" before medical societies and hospital staffs.

The Committee has worked with the Academy Committee and St. Louis University School of Medicine Cardiovascular Section in presenting a number of special panel discussions on heart disease before a number of large county medical society meetings. In addition, cooperation was given St. Louis University School of Medicine in their fall and spring two-day Cardiac Auscultation courses offered to all members of the Missouri State Medical Association.

The Committee feels that Missouri physicians had many opportunities to attend easily accessible, interesting and practical scientific postgraduate programs over the state this last year. In addition to the many good programs of county medical societies, some other postgraduate meetings held were Southeast Missouri Cancer Conference at Cape Girardeau, Ozark Empire Cancer Conference at Springfield, Kansas City Southwest Clinics, Mississippi Valley Medical Society in St. Louis, Missouri Academy of General Practice Annual Assembly in Jefferson City, St. Louis Academy of General Practice One-Day Symposium in St. Louis, Kansas City Academy of General Practice One-Day Symposium in Kansas City, Northwest Missouri Academy of General Practice meetings in St. Joseph, Franklin-Gasconade-Warren Chapter of the Missouri Academy of General Practice in Washington, St. Louis University Cardiac Auscultation courses in St. Louis, University of Missouri Spring Clinical Conference and a Symposium on Nutrition in Pregnancy in Columbia, and many other special programs for physicians in practice given at Missouri University, St. Louis University, Washington University and Kansas University Schools of Medicine.

The Committee takes this opportunity to express thanks and appreciation to all those physicians who have appeared on the many scientific postgraduate programs held over the state this last year.

James G. Janney, Jr., Chairman,
M. Pinson Neal,
Michael S. Wepperich,
John I. Matthews,
Hector W. Benoit,
Robert Smith,
W. Paul Maddux,
J. H. Keim,
C. E. Martin,
Wyeth Hamlin.

The Speaker referred this report to the Reference Committee on Medical Education.

The report of the Committee on Publication, Charles R. Doyle, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON PUBLICATION

The 54th volume of Missouri Medicine was completed with the December 1957 issue. During 1957 there were published 32 scientific articles, 11 case reports, 17 special articles, 22 editorials, 11 "Curiosa et Trivia," nine "Capsule Clinics," four "Washington," eight articles from the Missouri Academy of General Practice, 11 articles on the Woman's Auxiliary, 11 "Missouri Medicine in Review," 11 President's pages, 11 articles by the Field Secretary, 273 news items, 76 death notices, listings of 199 new members, 105 Councilor District news, 11 articles from the medical schools, 14 reports on organizational activities, 51 miscellaneous articles, three reports on legislation, 11 listings of medical meetings in Missouri, 23 book reviews, seven Tuberculosis Abstracts, minutes of the House of Delegates and a roster. There were 594 pages of reading material, 630 pages of advertising and 86 pages of inserts.

Advertising in Missouri Medicine from January 1, 1957, to December 31, 1957, earned $47,786.86. Subscriptions of nonmembers amounted to $201.30, making $47,987.66 earned by the publication. The cost of production (printing and illustrations) was $33,066.89.

The Committee on Publication and the Editorial Board met on January 5, 1958, and received reports on Missouri Medicine and discussed ways of improving the publication. The Committee wishes to thank the Contributing Editors and members who have furnished scientific material during the year.

Charles R. Doyle, Chairman,
Richard H. Kiene,
C. G. Stauffacher,
R. O. Muether,
Ben M. Bull.

The Speaker referred this report to the Reference Committee on Medical Education.

The report of the Committee on Defense, Charles E. Hyndman, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON DEFENSE

Cases pending, March 1, 1957	2
New cases during the year	0
Cases settled during the year	0
Cases pending, April 1, 1958	2

C. E. Hyndman, Chairman,
Joseph G. Webster,
Roland S. Kieffer,
L. Paul Forgrave,
James D. Horton.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Public Policy and Public Relations, Jerome I. Simon, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND PUBLIC RELATIONS

The Committee on Public Policy and Public Relations, through its chairman, maintained during the year close contact with the growing activity of the Association in the over-all field of communication—particularly communication with the membership at large. A special effort was made to stimulate attendance at this 100th Annual Session.

The policy direction of public relations activity came from the Council and the officers of the Association, and day-to-day work of execution was shared by the staff and our public relations agency under the executive direction of Mr. O'Brien. Our Committee's practical function in this connection has been to satisfy itself that funds for the activity are wisely budgeted.

It is the view of the Committee that our public relations program is growing in a sound way to serve the expanding needs of the Association.

JEROME I. SIMON, Chairman,
W. D. CHUTE,
RUSSELL J. CRIDER,
ROLLA B. WRAY,
HARRY C. LAPP,
O. B. CRAWFORD,
H. W. CARRINGTON,
J. J. BREDALL,
JOHN R. DIXON,
RAY LYLE.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Medical Education and Hospitals, Kenneth Glover, M.D., Mount Vernon, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals met in Jefferson City, February 9. Although no specific assignments have been given the Committee this year, a number of important matters pertaining to the training of those on the medical and hospital care teams and more efficient and effective use of medical and hospital care facilities, were extensively discussed at the February 9 session.

Scientific exhibits attracted attention.

The Committee was fortunate, during a part of its deliberations, in having Mr. Ted Lloyd, Executive Secretary, Missouri Hospital Association, present to take part in the discussion.

The following comments and suggestions were made and agreed upon by the Committee and hereby submitted:

The place and value of community hospitals, properly located over the state, in promoting a wider and better distribution of doctors and in making available needed hospital facilities, are fully recognized and appreciated by the Committee. However, it should be kept in mind that it takes trained personnel to staff these hospitals. The Committee feels that the training of medical and para-medical and hospital personnel is not keeping pace with the building of hospitals. Such a situation affects the standards of patient care, in all hospitals, through excessive competition for the available, inadequate personnel supply. Facilities for the training of sufficient nursing personnel to meet present and future needs seem to be lacking and possibly dwindling. Sufficient numbers of qualified technicians to work with doctors and in hospitals are in question from the standpoint of staffing present facilities.

It is quite evident that more hospitals are being built every day and more and more personnel is needed to staff them. Do we need all of these hospitals? Are patients, in many instances, occupying acute hospital beds longer than is necessary? The Committee is inclined to feel that "no" and "yes" are the answers in order. What are some of the factors involved? One of the most important is hospital insurance. When hospital bills are covered by insurance, some people may insist on going into a hospital when they could be cared for just as well at home or in the doctor's office. This is more apt to be true when such home and office care, unlike the hospitals costs, are not covered by insurance. The Committee does not think it is the doctor's responsibility to be the policeman for hospital insurance utilization. This is an educational responsibility to be shared by health insurance plans, hospitals, physicians and the covered public. A second factor influencing the use of more and more beds in general hospitals involves the care of increasing numbers of older people who need only convalescent or nursing home care which is not available. Is anything being done in Missouri about these problems?

The Committee is pleased to learn that the State College at Cape Girardeau, in cooperation with the Southeast Missouri and St. Francis Hospitals of Cape Girardeau, is planning the offering of a two-year nurses' training course at the end of which time such trainees are eligible to take the state board examination for a registered nurse's license. The course is so constituted that the academic phase will be taken at the college and the clinical phase at the hospitals, with specific coordination arranged by the college. The state board of nursing examiners is being consulted in the setting up and administration of the course. It is hoped to begin the first class of 25 girls in September of 1958. If this program works it is foreseeable that similiar courses may be worked out at other colleges over the state.

A program for the training of Licensed Practical Nurses is now in the process of expansion in Missouri through the efforts of the State Department of Education and the Missouri Hospital Association. This project is primarily concerned with outstate Missouri and is now in progress in Joplin, Mexico and Poplar Bluff. Through local hospitals and a coordinator of the local school system a training program is set up for practical nurses. The state licensing board for nurses is cooperating with this project.

A school for the training of surgical technicians has been organized at Research Hospital in Kansas City on the basis of a 16 weeks course. Other hospitals over the state are offering similar training and more are planning to do so.

The Committee congratulates the Woman's Auxiliary in their work in recruiting young people for training programs in health careers. Their efforts in this respect, added to those of other interested organizations and agencies, have definitely contributed to interesting more people in health careers.

In the matter of need for additional hospital construction the Committee notes that the Kansas City Area Hospital Planning Council has become a most important factor in determining if and when more hospital beds are to be added in the Kansas City area. This council has studied the hospital needs of the area and has made itself completely familiar with the present facilities, personnel available to staff the facilities, and the economics concerned with these factors. On the basis of its information and influence the council is being consulted on all proposals for hospital expansion in the area. The Committee recommends that this function of the Kansas City Area Council be adopted by all other areas of the state. In line with this idea the Committee proposes to offer its services, in an advisory capacity, to the Missouri Division of Health with the hope of being of help to the Division in its efforts to keep current, under the Federal Hospital Construction Law requirements, determinations of where in the state new hospital construction or additions are needed.

Dr. Francka and Dr. Murphy are interrupted from conversation for a picture.

The Committee recommends that the Missouri State Medical Association continue its cooperation with the Preceptorship Training Program for senior medical students at the University of Missouri Medical School. From the senior class of 1956-57, which had 23 graduates, eight students took six weeks preceptorship training. The 1957-58 senior class has 33 members with 10 of them taking preceptorships. Members of the Missouri State Medical Association who served as preceptors for the 1957-58 seniors are: Drs. A. E. Spelman, Smithville; Frank B. Matteson, Grant City; Wallace Carpenter and James R. Allen, Rock Port; C. T. Edmondson and D. W. Croom, Malden; Paul A. Roberts and Charles A. Worley, Sweet Springs; Jordan A. Kelling, Waverly; Robert Best, Higginsville; George Gary and Robert W. Smith, Marcelline; Doyle McCraw, Bolivar; and Graham H. Parker, Platte City. None of these preceptors practice in towns of more than 3,500 population. The policy of the University, at present, is to select preceptors from the smaller towns over the state. The Committee is hopeful that this program will produce a good number of physicians who will locate, following their training periods, in the smaller towns of Missouri.

The Committee congratulates Missouri Medical Service on the major new benefits added for its Blue Shield members as of February 1, 1958. Benefits which will now be available for many services in the physician's office or the hospital outpatient department should be helpful in reducing demands of patients for hospitalization for these services just because their insurance covers such services only when hospitalized.

The Committee feels that more study should be given to a deductible feature in health insurance policies as a possible further means of decreasing unnecessary hospitalization for illness not ordinarily requiring hospitalization. Steps along the lines just mentioned and others of a similiar nature, not discussed in this report, must be taken to help eliminate excessive hospitalization, with its accompanying costs, for diagnoses and minor procedures which should be done in doctors' offices.

Kenneth Glover, Chairman,
Harry K. Purcell,
Ralph R. Coffey,
W. J. Ferguson,
George J. L. Wulff.

The Speaker referred this report to the Reference Committee on Medical Education.

The report of the Committee on Cancer, Marvin L. Napper, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON CANCER

The primary consideration of the Committee this year has been the promotion of a state-wide cytological service for the study of cervical smears. It is the opinion of this Committee that such a service, properly organized and administered, will be of definite benefit in the over-all cancer control program.

After considerable study of this problem, this Committee last year recommended to the Council of MSMA that such a cytological service be established. The matter was referred to the MSMA Committee on Laboratory Medicine for consideration.

The House of Delegates, at the 1957 Annual Session, approved the Committee report in full which included the matter of the possible establishment of a state-wide cytological service for the study of cervical smears. On May 26, 1957, a joint meeting of the Committees on Cancer and Laboratory Medicine was held to further implement the idea of the cytological service. Following an extensive and thorough discussion of the matter it was unanimously agreed that the Committee on Laboratory Medicine would draw up specific plans for physician education, including inquiry of the Division of Health and the Missouri Cancer Society on possibility of available funds, and that this be submitted to a joint meeting of the two Committees in the fall of 1957. On November 10, 1957, another joint meeting of the two Committees was held. On this occasion the Committee on Laboratory Medicine proposed a three-phase cytology plan which was approved and referred to the Council of the State Association. A more detailed explanation of this three-phase cytology plan (1. professional education; 2. training of cytotechnologists; 3. education of the public) is contained in the annual report of the Committee on Laboratory Medicine published also in the Report of Officers and Committees.

The Committee with the cooperation of the Missouri Division of the American Cancer Society and the Missouri Division of Health has continued sending to all Missouri physicians *CA*, a bulletin of cancer control progress. The Committee is also continuing the mailing of quarterly *Cancer News* to the membership of the Association.

The Committee is pleased to report that the Nichols Sanitarium for the Treatment of Cancer at Savannah, Missouri, has been closed and the physical facilities purchased by the School Sisters of Saint Francis. Plans are to use this for a Mother House, Convent and Novitiates, and a Nursing Home under the name of La Verna Heights.

MARVIN L. NAPPER, Chairman,
GEORGE A. CARROLL,
JOSEPH L. FISHER,
THOMAS M. MARTIN,
GEORGE O. MILES,
JOHN E. LAMY,
C. W. MEINERSHAGEN,
BYRON E. WATTS,
CHARLES E. LOCKHART,
JOHN J. MODLIN,
A. N. ARNESON.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Medical Economics, A. P. Rowlette, M.D., Moberly, Chairman, follows:

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

As is customary, the Committee wishes to present information about the Blue Cross-Blue-Shield Plans of Missouri.

Missouri Medical Service (Blue Shield)

Membership, December 31, 1956	445,162
Membership, December 31, 1957	429,785
Reserve per agreement	$15.53
Reserve per participant	$ 6.54
Number of cases paid	89,553
Amount paid during year	$5,467,353

Kansas City Blue Shield Surgical Medical Care

Membership, December 31, 1956	439,585
Membership, December 31, 1957	441,327
Reserve per agreement	$13.01
Reserve per participant	$ 4.97
Number of cases paid	197,427
Amounts paid during year	$5,035,271.76

Blue Cross—St. Louis Plan

Membership, December 31, 1956	840,548
Membership, December 31, 1957	797,067
Reserve per agreement	$10.70
Reserve per participant	$ 4.47
Number of cases hospitalized	155,797
Number of days hospitalized	1,023,429
Average days stay per year	7.96
Amount paid during the year	$18,046,238.00

Kansas City Blue Cross Hospital Service

Membership, December 31, 1956	480,295
Membership, December 31, 1957	480,182
Reserve per agreement	$12.73
Reserve per participant	$ 4.85
Number of cases hospitalized	86,678
Number of days hospitalized	556,942
Average days stay per year	7.9
Amount paid during year	$9,950,979.45

Medicare

The Committee presents the following data relative to the Medicare Program from date of origin, December 7, 1956, through December 31, 1957.

	Total Number of Cases	Amount Paid
St. Louis	4,061	$314,708.00
Kansas City	3,314	$229,562.00

A. P. ROWLETTE, Chairman,
GEORGE L. HAWKINS,
JOHN R. FORGRAVE,
A. B. SMITH,
R. E. BREUER,
ROBERT D. DUNCAN,
JOHN T. CROWE,
G. W. WINN,
E. D. IMES.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Mental Health, Henry V. Guhleman, M.D., Jefferson City, Chairman, follows:

REPORT OF THE COMMITTEE ON MENTAL HEALTH

Enactment of legislation sought by the Committee at the 69th General Assembly at last places Missouri in a position to start correcting the deficiencies in the state's mental health care.

The new law requiring that the director of the Division of Mental Diseases be a "person competent in the field of mental diseases, administration and program planning" coupled with the building and renovation money from the recent bond issue will provide a long-needed start.

Just how serious the condition is was spelled out recently by the American Psychiatric Association inspectors who refused to approve four of the state's five mental hospitals. Only St. Louis State Hospital received "conditional" approval good for one year. It must be pointed out, however, that the individual superintendents and their staffs are doing the best they can with what they have to work with.

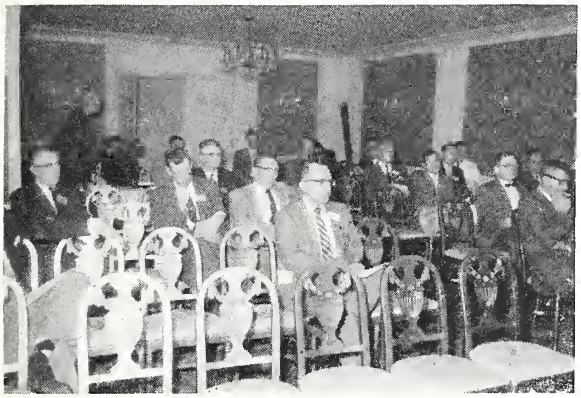
The APA's 3-man inspection team pictured the hospitals as over-crowded and lacking in funds and skilled manpower. The Mental Health Committee had urged such a survey by the APA for some time.

At its last meeting the Committee drafted a policy statement concerning the new law which it sent to the 5-member State Mental Health Commission named by Gov. James T. Blair to carry out the provisions of the new law. The statement complimented the commissioners, three of them members of the Missouri

State Medical Association, on undertaking a job of such magnitude and urged that the post of director be filled by a "psychiatric physician of outstanding professional accomplishments." The three MSMA members, all psychiatrists, are Dr. Albert Preston, Jr., Kansas City; Dr. Edmond F. Sassin, St. Louis, and Dr. E. Chaille Chaisson, Columbia.

Included in the statement composed at the Committee's meeting on September 8, 1957, was a recommendation for a strong "central staff of well qualified personnel." This also was one of the recommendations subsequently made by the APA's study group. Such a central staff would help insure that eventually the state has a coordinated program and not a separate program at each of the five mental hospitals.

The Committee also urged that the Governor include sufficient funds in his budget message to make a good start on the program. It has been estimated that it would cost between 32 and 36 million dollars just to build custodial bed space to relieve the overcrowding.



Instruction courses were presented Monday and Tuesday mornings.

Some relief, of course, can be expected on this from the 18 million dollars allocated to the hospitals from the 75-million dollar bond issue voted in 1956. However, much of this money will go for rehabilitation and modernization of existing structures and new treatment facilities. Expenditures up to January 1 of the 18 million totalled about ½ million.

While a bill aimed at reducing the overcrowded conditions at the hospitals was defeated last session, some progress has been made in that direction by administrative action of the Division of Health. The bill, approved in theory by the Mental Health Committee, would have allowed certain patients to be placed in boarding or family homes to relieve the overcrowding.

Dr. H. M. Hardwicke, acting health director, reports that in cooperation with several of the state hospitals, the exchange of mentally ill in boarding homes for senile patients in state hospitals is being put into effect. While this does not reduce the hospital population, it does help reduce the ratio of senile patients who should not be there.

On October 1 the Committee received a reply to its message to the Mental Health Commission. The late Powell B. McHaney, St. Louis, Commission chairman, wrote:

"I appreciate very much your letter of September 10 with its enclosure. I agree heartily with the statement of the Mental Health Committee of the Missouri State Medical Association.

"The Commission at this time is in the process of trying to find a director of the kind and type that is described in that statement. Any help that you and your associates can give us will be greatly appreciated."

The present chairman, Francis Smith, St. Joseph, is of the same mind. Following release of the APA report, Mr. Smith said the Commission was seeking a qualified man to carry out the recommendations of the report. He also went a step further and said the report was "only partial" as a blueprint of the state's mental health needs. Mr. Smith is a former state senator from St. Joseph.

At its September meeting, the Mental Health Committee reviewed the change brought about in commitment procedures by the new law enacted at the 1957 session of the legislature. Now only one authorized person's signature is required, instead of two as in the past, on forms for involuntary commitment of patients to state mental hospitals.

There also was a discussion of the benefits allowed by the Blue Cross Plans in St. Louis and Kansas City for patients hospitalized for mental and nervous illness, compared with the benefits for other patients. The Committee unanimously decided to present its findings to the Council of the Missouri State Medical Association. The Committee urged that "hospital benefits for patients suffering from mental and nervous illness be the same as those for other patients."

The Council approved the recommendation at its meeting at the Coronado Hotel, St. Louis, on September 21-22, 1957. The Blue Cross Plans of St. Louis and Kansas City were informed of the action.

At its next meeting, the Committee will consider a special report by its chairman, Henry V. Guhleman, M.D., Jefferson City, on the same general subject. Dr. Guhleman represented the Committee at the 4th Annual Conference of State Mental Health Representatives on November 22 and 23, 1957, in Chicago.

Henry V. Guhleman, Chairman,
Thomas Thale,
W. J. Cremer,
John J. O'Hearne,
James N. Haddock,
D. R. Edwards,
Alex L. Brown,
Arnold S. Block,
John D. DeMott,
John H. Platz.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Maternal Welfare, Joseph L. Johnston, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

The Committee met in Jefferson City, January 19, 1958. In addition, subcommittees in the Eastern and Western sectors of the state have met frequently since the last report. At the meeting on January 19 the following people were in attendance: Joseph Johnston, M.D., Springfield; William See, M.D., Columbia; J. S. Roden, M.D., Columbia; H. C. Wasserman, M.D., St. Louis; A. C. Trueblood, Jr., M.D., St. Louis; James Keeler, M.D., Kansas City; F. C. Long, M.D., Savannah; Irwin Craig, M.D., Joplin; Henry Willumsen, M.D., St.

Joseph; William Cassel, Jr., M.D., Jefferson City; Miss Helen Penn and Mr. Ray McIntyre, St. Louis. At this meeting the Committee considered a number of important matters and took definite action on most, reported as follows:

REPORTS TO PHYSICIANS

After full discussion it was decided that physicians whose maternal death cases were studied should be asked to the study conferences and, when requested by them, they should receive a written report of the findings on the cases. It was suggested that a question be included on the work sheet, asking if the physician desired this. Dr. Trueblood presented a work sheet showing desirable changes that had been made.

POSTMORTEMS

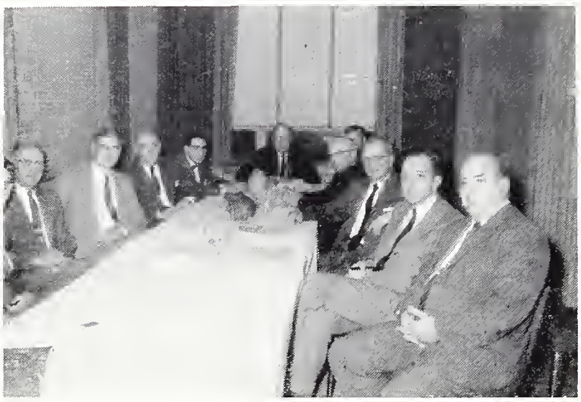
The availability of pathologists for postmortems for maternal deaths under study was discussed and it was felt that the cooperation of the Missouri Society of Pathologists, which has been asked, is needed before further promotion of such postmortems on a state wide basis. It was thought that a list of available pathologists in different parts of the state should be compiled and made available. Dr. William Cassel of the Missouri Division of Health said that probably arrangements could be made for pathologists for such service to those parts of the state not currently covered.

MATERNAL DEATHS

It was decided that the Committee needed to set up a standard uniform reporting procedure so that the reports of different years may be easily compared. The secretaries of the subcommittees in the Eastern and Western sectors of the state were asked to get together and work out this project.

Dr. Cassel showed graphs giving information on maternal deaths, stillbirths, deaths in the first 30 days and in the first year for different sections of the state.

It was agreed that a request be made, through Dr. Cassel, to the State Division of Health for a change in the wording of the certificate of death. The change recommended would be a question on the form asking whether the deceased was pregnant at the time of death or during a period of ninety days prior to death.



The Committee on Maternal Welfare met during the year.

MEETINGS

Several county society meetings at which programs on Maternal Welfare have been presented were reported. It was suggested that every few months a footnote should accompany the case reports in MISSOURI MEDICINE stating that the Committee would furnish such programs on request.

CASE REPORTS FOR MISSOURI MEDICINE

It was decided that maternal death case reports from over the United States would be submitted to MISSOURI MEDICINE, to be carried with an appropriate explanatory note or introduction. It was asked that reports be used so as to give different subject matter in consecutive journals.

ANNUAL SESSION PROGRAM

It was voted that a place on the program of the Annual Session of the MSMA, for an obstetric program, be a standing request of the Committee, preferably a luncheon meeting. It was decided to hold a breakfast meeting at the forthcoming Annual Session on Tuesday morning, April 15, with Dr. Trueblood presenting the report of the work of the Committee in maternal deaths plus the presentation of two case reports dealing with "Hemorrhage."

The Committee on Maternal Welfare held a breakfast meeting on Tuesday morning.

LEGISLATION

After considerable research on the subject the Committee decided to drop for the time being the idea of promoting legislation relating to research studies conducted by the Committee and the Missouri Division of Health—such legislation having as its purpose to safeguard the confidential character of the research studies.

MISSOURI HOSPITAL ASSOCIATION

It was agreed that the Committee request a place on the program of the 1958 meeting of the Missouri Hospital Association in order to present to that body an explanation of what the Committee is attempting to do by reviewing the causes of maternal deaths over the state and to seek cooperation from the hospital people in improving maternal care in Missouri.

JOSEPH L. JOHNSTON, Chairman,
WILLIAM SEE,
E. E. WADLOW,
H. C. WASSERMAN,
GERALD L. MILLER,
JAMES E. KEELER,
JOSEPH M. KREBS,
IRWIN T. CRAIG,
FRANCIS R. BURNS,
F. C. LONG,
P. V. SIEGEL.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Infant and Child Care, Daniel B. Landau, M.D., Hannibal, Chairman, follows:

REPORT OF THE COMMITTEE ON INFANT AND CHILD CARE

The Committee on Infant and Child Care met in St. Louis on May 19, 1957, to consider, at the request of the Missouri Division of Health, the situation existing, namely, that the remaining federal funds allocated to Missouri for the purchase of Salk vaccine must be used within a limited period of time or be forfeited. In addition to the Committee members present, Drs. Henry Hardwicke, E. A. Belden and C. W. Meinershagen, from the Division of Health, and Dr. Frank Freckleton, of the U.S.P.H.S. District Office in Kansas City, attended and took a major part in the discussion, explaining the position these agencies were in regarding this vaccine program. Dr. Harry O'Brien and Dr. T. L. Dwyer, Mexico, representing the Audrain County Medical Society, were also present to present the position of their medical society in carrying forward the polio vaccination program.

In view of the situation existing at that time, in that the remaining federal funds allocated to Missouri for the purchase of Salk vaccine must be used within a limited period of time or be forfeited, the Committee submitted the following report and recommendation to the Council:

While progress in the total poliomyelitis immunization program, utilizing both private commercial vaccine and the federally purchased supplies, can be considered substantial, Missouri is still below the immunization level deemed a satisfactory objective. There is a great continuing need for emphasis by physicians on the immunization program—both in the administration of vaccine on a private basis, and on an emergency basis during the next several months, looking toward complete utilization of all supplies of federally purchased vaccine still available to the state.

In the approximately two years since federal funds became available for the purchase of Salk vaccine, Missouri has used only about 50 per cent of its allocation. The time available for use of the remaining allocation is about six to eight months, depending upon delivery schedules. It is the hope of the Committee that every effort will be made to use this vaccine within this time. This need for speed should be taken into account by the various component medical societies in considering the immunization program to be followed in their communities. In every case there should be no room for doubt in the public mind but that the medical profession has made every effort to assure that immunization has been available to everyone provided for in the federal law, and the state's allotment of vaccine has been utilized to the fullest extent. It should be emphasized that this final effort to utilize the federally purchased vaccine is an emergency situation and, barring unforeseen events, it is the opinion of representatives of the Missouri Division of Health, the United States Public Health Service, and of the Committee that as far as government programs are concerned, poliomyelitis vaccination will take its normal place in the usual private practice of medicine after completion of this campaign. Thus the Committee recommends that:

1. The Missouri State Medical Association reaffirm its basic position that vaccination against poliomyelitis should be a part of the patient's overall personal immunization program, and that physicians should include polio vaccination with other immunization procedures on a year-round basis, except where medically contraindicated as in the event of a household contact with a current polio case.

2. The Missouri State Medical Association and its component societies cooperate with the Missouri Division of Health to the fullest extent possible in the current 1957 campaign for immunization with Salk vaccine.

3. In cooperation between the county medical societies and the Division of Health, an effort be made to again urge everyone to obtain immunization against polio in a physician's office on an individual basis, with such immunization offered both through use of federally purchased vaccine for persons under 20 and pregnant women with an optional small and reasonable charge for administration only, and through the use of commercial vaccine at the physician's usual charge.

4. In areas where recommendation 3 does not produce the desired results, each county medical society should work with the Division of Health to develop a program for immunization utilizing the available federally purchased vaccine, either (a) by setting specific days and times for physicians in the community to hold special clinic hours in their own offices for the purpose of giving immunizations without charge to all those eligible who wish to come, with the cooperation of the Division of Health in providing suitable publicity, and in obtaining volunteers for the necessary clerical work involved; (b) or, if this is not feasible, by the physicians in the community holding centralized public clinics of their own, without charge, for all those eligible, again with the cooperation of the Division of Health for publicity and clerical help; (c) or, if neither of these is feasible, by calling on the Division of Health to set up its own clinic in the community, manned with its own personnel; (d) or, by any combination of such methods.

Dependent on the supplies of federally purchased vaccine available, the program decided upon should, of course, include provision for all three rounds of immunizations in the Salk series.

The Committee is aware that certain problems and misunderstandings have arisen in various localities over the state in the continuation of the Salk vaccine program. It is felt, however, that local doctors through their local medical societies can best determine how a program of this nature should be handled in their particular localities.

The Committee was represented by Dr. Guy N. Magness, University City, at the 6th National Conference on Physicians and Schools held at Highland Park, Illinois, October 30 through November 2. Dr. Magness participated officially on this program.

The Committee, through the Field Secretary of the Missouri State Medical Association, participated in the planning and administration of the five School Health Workshops held during June of 1957 at the five State Colleges. Through this Committee personnel from the Bureau of Health Education of the American Medical Association was secured for appearances on the programs of these three-day workshops. An invitation has been extended again this year, 1958, to the Committee, for active participation in similar workshops to be held this coming June. This invitation has been accepted.

DANIEL B. LANDAU, Chairman,
H. E. WACHTER,
R. J. LADRIERE,
GUY N. MAGNESS,
JOHN S. SENNOTT,
J. C. MOODY,
E. J. SCHWARTZ,
JACK N. WILES,
JAMES A. KINDER,
GERALD E. HUGHES.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Health and Public Instruction, A. W. McAlester, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

The Bureau of Health Education of the American Medical Association maintains a fine library on health education transcriptions for radio. In addition the bureau has added, in recent years, a library of scripts and films suitable for televised health education programs. These may be borrowed, free of charge, from the A.M.A. by county societies or their auxiliaries for use over local stations.

Based upon statistics gathered from various radio listening polls, it is noted that people in small towns and rural areas listen a great deal to their local stations. In most cases, the majority of such stations have air-time which they are pleased to offer as a free public service for good health education programs.

As a result of the excellent cooperation given the Mid-Missouri and Perry County Medical societies in broadcasting health education transcription programs from the A.M.A., the radio stations, KSMO at Salem, KTTR at Rolla and KSGM at Ste. Genevieve, were awarded in 1957 A.M.A. "Certificates of Participation." These awards are given to stations throughout the nation that have broadcast during the five years just passed a minimum of ten series of thirteen programs prepared by the A.M.A. Bureau of Health Education. The awards were officially presented to the managers of the three radio stations at special meetings of the two medical societies.

Delegates took notes on reports.

The Committee suggests that county medical societies and their woman's auxiliaries take full advantage of the services available from the A.M.A. Bureau of Health Education in promoting lay health education.

The societies in the more metropolitan areas of the state are to be congratulated on the quality and quantity of health education programs they have been sponsoring over both radio and television.

The Committee has furnished a good number of speakers on health subjects during the last year for civic clubs, PTA groups, women's clubs and Health Forums sponsored by local medical society auxiliaries.

An exhibit this year was not displayed at the Missouri State Fair by the Committee.

However, the Committee feels that local county and community fairs offer local medical societies and their auxiliaries an excellent avenue for promoting sound health education.

It seems to this Committee that the carrying out of the suggestions herein offered may also aid in causing more and more people to look to organized medicine for the answers to important health and medical care problems of the day.

A. W. MCALESTER, Chairman,
R. R. GRAYSON,
J. EARL SMITH,
E. A. BELDEN,
JOHN R. MCDANIEL.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Constitution and By-laws, W. A. Bloom, M.D., Fayette, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

Nothing has been referred to the Committee by the Council or committees, nor suggestions made by members, during the year. Therefore, the Committee has held no meeting.

Members of the Committee will be available to reference committees, should their services be desired, during the 1958 convening of the House of Delegates.

W. A. BLOOM, Chairman,
H. M. PARKER,
KENNETH V. LARSEN,
W. L. ALLEE,
P. W. JENNINGS.

The Speaker referred this report to the Reference Committee on Constitution and By-laws.

The report of the Committee on Conservation of Eyesight, T. E. Sanders, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON CONSERVATION OF EYESIGHT

The Committee on Conservation of Eyesight has had nothing referred to it during the year and, therefore, has not held a meeting.

The Committee wishes to recommend to the House of Delegates that the name of the Committee be changed to Committee on Eye Health.

T. E. SANDERS, Chairman,
JOHN MCLEOD,
H. B. STAUFFER,
PAUL G. WOLFF,
DICK H. UNDERWOOD,
W. J. MARSHALL,
MICHAEL F. PERNOUD,
D. E. EGGLESTON,
W. L. POST.

The Speaker referred this report to the Reference Committee on Constitution and By-laws.

The report of the Committee on Control of Venereal Disease, Edwin M. Powell, M.D., Springfield, Chairman, follows:

REPORT OF THE COMMITTEE ON CONTROL OF VENEREAL DISEASE

The Committee met January 29, 1958, in Jefferson City and considered a report by Dr. E. A. Belden, State Division of Health, on a pilot study covering a new morbidity reporting system for venereal disease.

The Committee felt the results of the pilot study conducted in St. Louis warranted the study. The pilot study of just four laboratories brought in 248 positive tests, 46 per cent of which were followed by morbidity reports from the physicians.

Physicians reported 17 per cent of the patients as nonsyphilitic. The Committee members felt this percentage was much too high, indicating perhaps a lack of familiarity with the disease by many physicians.

Thirty-one per cent of the positive tests reported by the laboratories still were to be reported on by the physicians, and the final 6 per cent consisted of miscellaneous reports from the physicians.

The Committee was asked by the Division of Health for permission to extend the pilot study into other areas of the state. Kansas City was mentioned as one area that probably would be profitable at this time.

While the Committee was agreeable to the expansion of the testing, the members felt the matter should first be approved by the Committee on Laboratory Medicine. It was agreed that the results of the pilot study should be brought to the attention of the Committee on Laboratory Medicine, and that the members should be asked to assist the division in establishing the program in the Kansas City area and any other areas deemed practical.

Guests attended the session of the House.

The Committee agreed to act in an advisory capacity to the health division on the reporting system. This was at the request of Dr. Belden, head of the Bureau of Communicable Diseases, and Dr. H. M. Hardwicke, acting director of the Division of Health, who also was present at the meeting.

The Committee approved another request by the health division. It concerns the inclusion of venereal disease checks in a multi-phase health screening being planned by the division. The division plans to conduct a pilot health study of indigents in one county.

The Committee decided that an article should be prepared for publication in Missouri Medicine, if the Committee on Laboratory Medicine approves the division's plan to extend the pilot study. The article, in the nature of a postgraduate review, would be prepared by Arthur W. Neilson, M.D., Committee member; Dr. Belden, and Charles C. Dennie, M.D.

It was the thinking of Edwin M. Powell, M.D., Committee chairman, that a reprint of the article might be used as a mailing to the members of the Missouri State Medical Association. Such a reprint plus a covering letter would give the physicians the latest information in the field, plus services to be offered by the Division of Health.

Edwin M. Powell, Chairman,
R. J. Murphy,
E. M. Cannon,
A. W. Neilson,
Robert B. Bristow.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

H. M. Roebber, M.D., Bonne Terre, Chairman of the Committee on Industrial Health, gave the following report of the Special Committee of the Council to Study Workmen's Compensation Law:

REPORT OF SPECIAL COMMITTEE OF THE COUNCIL TO STUDY WORKMEN'S COMPENSATION LAW

Members: Drs. H. M. Roebber, Chairman; John Growdon, Kansas City; Walter Sewell, Springfield; Carl F. Vohs, St. Louis; W. F. Francka, Hannibal; Douglas A. Ries, Richmond Heights, and Victor E. Scherman, St. Louis.

Background: A resolution adopted by the 1956 House of Delegates directed the Council to appoint a Special Committee to study Missouri's Workmen's Compensation Act. The life and purpose of the committee was extended another year by the 1957 House. Specifically, the committee was directed by the last House of Delegates to concentrate on "medical aspects" of the law, as reported on page 649 of the July, 1957 issue of Missouri Medicine.

The entire study was touched off by a recommendation by the A.M.A. House of Delegates in December 1955 that appropriate action be taken in each state to "seek adoption of statutory provisions to the end that all patients subject to workmen's compensation laws have the right to accept physicians' services provided by employers or to select another attending physician from a register of all other physicians in the community willing and qualified to perform the essential services." In other words, see what could be done about getting the right of free choice of physicians for employees covered by Missouri's law.

Missouri is one of nearly 35 states that forbids free choice of physicians. Workers are required to use employer or carrier-designated doctors.

The balance of the states allow free choice, choice from a panel, or some combination of the two. Strict control over the "eligibility" of physicians to participate, however, is maintained in many of the states by the administrative body of the program. In Wisconsin the panel of physicians is prepared by the state medical society.

The present provisions of the Missouri law are contained in Section 287.140 Revised Statutes of Missouri. They have undergone very little change since the Compensation law was first enacted in 1925. In 1931 an amendment was adopted providing treatment for 90 days instead of 60 days and raising the limitation from $250 to $750. The last amendment was made last summer providing that workers receive necessary travel expense in reporting for medical examination or treatment.

Action: Realizing that nothing could be done until the next regular session of the Legislature in 1959, the committee conducted a quiet questioning campaign. It was felt it was better to sound out physicians, lawyers practicing in the field of workmen's compensation and insurance firm executives than to launch into any public fact-finding program.

Results: It soon became evident that there would be active opposition to any attempt to secure free choice. Lawyers and insurance firms generally indicated they would oppose it for two reasons:

1. They thought it would be too hard to get adequate reports from many physicians.
2. They were afraid they would lose direct contact with the physicians. This, they felt, would often hinder and even delay the return of the worker to his job as soon as possible.

The committee found a much more favorable climate of feeling on the possibilities of a selective panel. In fact, some insurance firms even thought it would be a wholesome thing and be of benefit to all parties. They explained, they felt there were not enough physicians interested or sufficiently equipped to handle the industrial-type of practice. Some even thought that the adoption of the selective panel might encourage additional doctors to become interested in the field.

Many of the insurance company officials stated that, in effect, they were handling claims in this manner already in that they were furnishing their insured a full panel of physicians to whom they could refer employees. Many of them also indicated they would be interested in receiving the names of physicians interested in industrial work.

The committee's informal survey that also included various bar groups showed one clear trend. It seems that many companies are bringing more and more disabled workmen in from the out-state areas to the larger cities for medical care and treatment.

The firms reported their experience had been that the surgical and hospital facilities in many out-state areas are not adequate to serve their needs. They pointed out that some of the rural hospitals are without interns or qualified resident physicians. The committee wishes to point out that the amendment to the law enacted last year was designed primarily to relieve the worker of just such cost of travel. This is just a further indication that the practice of bringing injured workers to the city had grown to quite a thing by then.

Recommendation: The committee feels the time is not yet ripe for action.

Since the insurance firms have selected panels of their own choice, there is no reason for the MSMA to take a stand on that issue now.

The committee does recommend that further study be made of the law to test the feeling of physicians, attorneys in the field, and insurance firms from time to time. The committee recognized it is extremely difficult to change any law unless there appears to be major discrepancies that are harmful to the public as a whole. This does not seem to be the case at the moment, despite the committee's feelings that free choice is the only stand that it could recommend for the MSMA to follow if legislative action is decided upon by the House of Delegates.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Diabetes, Henry E. Oppenheimer, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON DIABETES

ORGANIZATIONAL

The Committee on Diabetes has been active in the formation of the Missouri Diabetes Association during the last year. This organization's purposes are to have a group of physicians throughout the state who, locally, will guide programs of detection and education, and who state-wide will meet once a year for a scientific program. The intent is to meet with the MSMA every three years and to meet in other communities in other years.

The Committee on Diabetes held a dinner meeting Monday evening.

An open dinner meeting of the Committee on Diabetes was held in Kansas City on April 1, 1957, in conjunction with the MSMA annual meeting. Seventeen Missouri physicians formed the Missouri Diabetes Association, and the new organization was endorsed by the House of Delegates of the MSMA on April 3, 1957.

This year another open meeting is contemplated for April 14 at which time further organizational structure is being planned.

SCIENTIFIC MEETINGS

There have been quite a few scientific programs in Missouri which related to diabetes.

Dr. Lillian Recant spoke at the annual meeting of the St. Louis Clinical Diabetes Society in March 1957 on "Oral Hypoglycemic Substances."

In April 1957, Dr. W. Stanley Hartroft spoke to the St. Louis Medical Society in a program sponsored by the St. Louis Clinical Diabetes Society. His topic was "Advances in Pancreatic Islets Cell Morphology."

In April 1957 Drs. Robert L. Jackson, G. Bruce Lemmon, Jr., and William H. Olmsted participated at the aforementioned dinner meeting of the Committee on Diabetes. Their topics embraced control of diabetes in children, in adults, and plantar ulcers respectively.

In November 1957 Dr. Charles H. Best of Toronto, the codiscoverer of insulin, spoke before an audience of laymen, under the sponsorship of the St. Louis Diabetes Association. During the same week Dr. Best also spoke at St. Louis and Washington University Schools of Medicine and before the St. Louis Society of Internal Medicine. His discussions centered about insulin, glucagon, diabetes and fatty liver.

Dr. McCullach, Cleveland, spoke at the dinner meeting of the Committee on Diabetes.

SCHEDULED MEETINGS

In April 1958, as an integral part of the MSMA annual program, the Missouri Diabetes Association will present a panel on "The Use of Insulin in Diabetes."

In January 1959 the Seventh Annual Postgraduate Course in Diabetes, sponsored by the American Diabetes Association, will be held in St. Louis, with Dr. William H. Olmsted the Director and Dr. Henry E. Oppenheimer the Co-Director.

DETECTION DRIVES

At least three successful drives were carried out in Kansas City, St. Louis and Springfield. In addition, many smaller areas have requested information and supplies in order to initiate detection campaigns. It is hoped that in the area of detection the Missouri Diabetes Association can be of great help in the future.

CAMPS

Two camps for diabetic children were held in 1957, in Swope Park, Kansas City, and at Lions Den Camp, St. Louis.

AMERICAN DIABETES ASSOCIATION

Dr. William H. Olmsted was reelected Treasurer of the ADA for his sixth term and Dr. Henry E. Oppenheimer was re-elected Chairman of the Assembly of Delegates and State Governor of Missouri.

Henry E. Oppenheimer, Chairman,
Lucin W. Ide,
J. Bruce Lemmon,
Robert H. Hodge,
Charles M. Lamke,
William H. Olmsted,
Robert E. Koch,
Harry M. Gilkey.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Hospital and Professional Relations, Hollis Allen, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

During 1957, members of the Committee continued to serve as members of the Hospital-Physician Relations Committee which is made up of an equal number of representatives from Missouri Hospital Association and Missouri State Medical Association.

That Committee met three times during the year and drafted "Recommended Guides for Hospital Medical Staff Relations." A copy of the draft will be found on pages 32-36 of the Council Report. The Council approved the proposed draft for submission to the House of Delegates. If approved by the House of Delegates and the Missouri Hospital Association, the Committee believes that they should be helpful in disposing of grievances between physicians and hospitals.

The Committee on Hospitals and Medical Education met in conference.

Another activity of the Committee, the "Missouri Conference for the Improvement of Patient Care," continued to study matters of interest to the three participating groups (physicians, hospitals and nurses) during 1957.

Among items discussed by the Conference were "Programs and Problems of the State Division of Health." These included the new Missouri Nursing Home Law, the Hospital Licensing Law, and the Division of Gerontology of the State Division of Health. Representatives of the Committee attended a meeting in Jefferson City, December 12, 1957, of state-wide organizations regarding problems of the aging population.

Hollis Allen, Chairman,
Victor B. Buhler,
Milton Shoss,
Stanley S. Peterson,
Carl F. Vohs,
Walter S. Sewell.

The Speaker referred this report to the Reference Committee on Reports of Officers.

The report of the Committee on Alcoholism, Ralph E. Duncan, M.D., Kansas City, Chairman, follows:

REPORT OF THE COMMITTEE ON ALCOHOLISM

A Meeting of the Committee was held during the 1957 Annual Session of the Association at Kansas City, Missouri, at which time the following program was adopted:

1. Continue to study the problem of alcoholism in Missouri.
2. Promote the formation of local committees on alcoholism in counties where they do not now exist.
3. Stimulate the established committees to step up their programs.
4. Provide educational material for local committees and all inquirers.
5. Develop and publish a revised edition of Alcoholism in Missouri, including recommendations for the consideration of the Council and Delegates at the 1958 Session.

During 1957, the Committee furnished considerable material to those requesting it. The requests came from individuals who had problems in their homes; to students who were preparing papers on the subject; to instructors in primary and secondary schools; schools of nursing; the University of Kansas Medical School; church and civic organizations as well as industrial organizations.

A special program was given before the St. Louis County Medical Society at their meeting on September 25, 1957; and the Boone County Medical Society at their meeting on October 1, 1957 in the auditorium of the School of Medicine, University of Missouri. A 30 ft. exhibit was prepared for the Annual Fall Clinical Conference of the K. C. Southwest Clinical Society. In addition to the above, the individual members responded to requests of organizations and individuals interested in the problem of alcoholism.

The Committee desires to express their thanks to Walter O. Cromwell, M.P.H., for his continued assistance in the preparation of the report on Alcoholism in Missouri. Mr. Cromwell is now Health Consultant to the Health and Welfare Council of the National Capital Area, Washington, D. C.

The Committee suggests that the Council make the following recommendations to the House of Delegates at the coming meeting of the Association in St. Louis, April 13-16, 1958.

1. The Missouri State Medical Association respectfully recommend for the consideration of the Governor and the General Assembly, the following program:

a. The State of Missouri should recognize the existence and magnitude of the problem of alcoholism, which either directly or indirectly afflicts so many of its citizens and their families, by establishing a state-supported program for the treatment and rehabilitation of alcoholics, research into the causes and prevention of alcoholism, and public education concerning this problem.

b. The program should be administered within the Department of Public Health, in a separate bureau or unit having certain autonomy, its own budget and sufficient staff. There should be established an appropriate advisory board or commission to guide, advise and assist in the development of the program.

c. The initial program should be supported out of the general revenues in an amount estimated necessary to start and develop the program.

2. That the Committee on Alcoholism be continued.

3. That the aims of the Committee, originally outlined in its report, printed on page 28 of the Report of Officers and Committees for 1952, be reaffirmed by the Association.

4. That the Committee on Alcoholism be instructed to continue to promote, with the assistance of the Association's officers and the staff of its executive office, necessary legislation that will provide ways and means to meet the problem of alcoholism in Missouri, squarely and effectively.

Ralph Emerson Duncan, Chairman,
George W. Forman,
Joseph B. Kendis,
S. D. Smith.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on Rural Medical Service, A. E. Spelman, M.D., Smithville, Chairman, follows:

REPORT OF THE COMMITTEE ON RURAL MEDICAL SERVICE

During the year 1957, 39 physicians located in Missouri towns of 10,000 or less population. Our physician's placement bureau in the State Association's headquarter's office was instrumental in effecting a good number of these locations. A good number of physicians visited the office during the year seeking information on suitable locations. In addition, a large volume of correspondence was carried on with physicians, both in and out of the state, concerning places to practice in Missouri. Many of the visits and much of the correspondence was with interns and residents. Some physicians returning from miltary service contact the bureau before selecting their location. The Council on Medical Service of the AMA sends to the state association office the names of those physicians interested in Missouri locations who have contacted the AMA first.

Considerable correspondence is regularly carried on with representatives of various communities over the state regarding their requests for assistance in getting additional medical manpower. The bureau has aided established physicians or groups in their quest for associates. The Association Field Secretary, in his travels over the state, has collected much valuable location information which has been helpful in the placement bureau's work.

On January 12, 1958, the Committee met formally at the Missouri Hotel, Jefferson City, to consider a number of rural health problems and related matters. The Committee took up briefly the Second Progress Report of the Regional Health and Hospital Study being made by Community Studies, Inc., Kansas City, Missouri. This study was discussed in the September, 1956, issue of Missouri Medicine under the heading "Study of Hospital and Nursing Home Needs in Missouri." Community Studies, Inc., of Kansas City, a private, nonprofit research group, received a grant on April 1, 1956, from the U. S. Public Health Service to make this study in Missouri and Kansas on a regional basis. Additional funds from the Missouri Division of Health has made it possible to include all of Missouri in the study, exclusive of the St. Louis area which was recently studied by the American Public Health Association. The main objective of the study is to determine the needs of the region for beds in general hospitals and chronic disease facilities, including nursing homes, with special attention to the needs of the chronic and aged sick. The results of this study, when completed, may have far reaching implications. Analyses of the facts and figures gathered through the study may indicate various changes needed in the medical, hospital and nursing home care situation relating particularly to the needs of the chronic and aged sick. The building and financing of hospitals and nursing homes in the future may well be tied in closely with the results of this and similar studies. The Committee feels that all physicians in the state should keep this study in mind and keep abreast of any reports of the study which will, from time to time, become available. The Chairman of the Committee has the privilege of serving on the Advisory Committee to this study.

The Committee on Rural Medical Service reported its work for the year.

Another knotty problem the Committee discussed concerned Blue Cross and Blue Shield coverage in rural areas of the state. Included here are high utilization figures with their causes and possible reductions. It was brought out in this respect that the use of Hill-Burton federal funds for aid in building rural hospitals requires various standards of construction which raises the cost of hospital construction and operation.

It is questionable as to whether some of these required standards are necessary and practical. If hospitals could be operated more economically, insurance premiums might be reduced for prepaid hospital care.

In considering this matter, our aging population, of course, came into the picture with its increasing influence on not only hospitals but nursing homes and medical care. The Committee took an hour from its deliberations to visit another meeting being held at the same time, in Jefferson City, which had been called by Dr. H. M. Hardwicke, Acting Director of the Missouri Division of Health. This session was called to explore, in a preliminary manner, the magnitude and gravity of the problem of old age in Missouri.

Following resumption of the meeting the Committee was privileged to have a report from Dr. John R. Hall of the Division of Health relating to visits that he had made recently to the hospitals over the state which have been constructed with the aid of federal funds. He gave reactions to the efficiency of operation of these hospitals and expressed numerous comments that local people gave him to questions he asked about their community hospitals. He suggested that a user's committee was needed in the state to help in passing upon hospital construction plans. The Committee heartily agrees with him.

The Committee also took a few minutes to discuss the preceptorship program at the University of Missouri School of Medicine. Three members of the Committee have served as preceptors to date. Their impression of the program seems to be good, and all three expressed their pleasure and satisfaction with the senior medical students assigned to them.

The Committee has continued this last year, in cooperation with the Council on Rural Health of the AMA, to furnish articles about local health and medical care problems to *The Missouri Ruralist* which reaches many farm people over the state. These articles are slanted for farm people and written by selected physicians over the entire United States.

The Chairman of the Committee attended the Second Conference for members of Rural Health Committees of the state medical societies and presidents and executive secretaries of state societies, held at Purdue University on October 4 and 5, 1957. This conference is jointly sponsored by the University and the Council on Rural Health of the AMA. Helpful ideas from other states relating to solutions of rural health problems were picked up at this conference. These will be presented to the Committee for study and possible activation.

A. E. Spelman, Chairman,
John F. Pearl,
C. A. McBurney,
William J. Shaw,
A. J. C. McCallum,
Doyle C. McCraw,
B. J. Bass,
Charles H. Lewellen,
Jack Mullen.

The Speaker referred this report to the Reference Committee on Miscellaneous Affairs.

The report of the Committee on American Medical Education Foundation, James P. Murphy, M.D., St. Louis, Chairman, follows:

REPORT OF THE COMMITTEE ON AMERICAN MEDICAL EDUCATION FOUNDATION

The Committee met July 28, 1957, at the Missouri Hotel, Jefferson City, to map plans for the 1957 AMEF campaign.

The Committee also considered a request from the Council for a recommendation on whether or not the Council should propose an assessment for AMEF to be levied against MSMA members.

On the latter point the Committee recommended that the MSMA fund raising activity be continued for the present on a voluntary basis. This will be discussed fully.

It was decided to conduct the 1957 AMEF campaign with a mail appeal to each member of the MSMA.

This was supported by appeals to presidents of all county societies asking their help by explaining the need fully at their meetings. Suggested editorials also were sent to the editors of the various county society bulletins. The campaign was tied in with the national AMEF campaign as to timing and material.

While the society presidents and the editors cooperated splendidly, the number of contributors actually dropped slightly. They declined from 229 in 1956 to 222 in 1957.

The Committee is happy, however, to report a 20 per cent increase in the amount given in 1957. AMEF contributions climbed from $7,484 in 1956 to $9,126 in 1957. The average gift rose from $33 in 1956 to $41 in 1957. The average in 1955 was about $50 when 117 doctors gave $5,955.

Missouri climbed from 20th on the gift-giving ladder to 17th among the states. Michigan with about twice as many physicians gave just a few more dollars than Missouri did last year, $9,621.

The AMEF reports that total contributions were $984,885. Although the figure is somewhat smaller than the 1956 total of $1,072,727, it actually represents a 13 per cent increase in the voluntary contributions by physicians. The 1956 total was bolstered by a $250,000 grant from the AMA, while the 1957 grant was the normal $100,000. The number of individual contributors increased 4,263 in 1957, making a total of 44,155.

Missouri medical schools actually benefit out of proportion to the AMEF contributions from the state. In 1956 the AMEF grants to the three medical schools totalled $35,791. This was nearly five times Missouri's 1956 AMEF contribution of $7,484. Information on the 1957 grants is not available yet.

These figures, of course, do not give the full story of what our physicians contribute to further medical education.

In 1956 an additional 929 Missouri physicians gave an additional $41,994 directly to medical schools through alumni associations. This made a grand total, counting the AMEF contributions, of $49,478 in 1956 from 1,158 physicians, about one-fourth of those in the state. The 1957 alumni contributions have not been released as yet, but they probably will be as high as 1956 or higher.

On the assessment question, from the Council, the Committee felt that the majority of physicians would resent an assessment and consider it an abridgment of their rights. It also was felt that the assessment might discourage the big givers.

Fear also was expressed that an assessment might tend to reduce the number and amounts of physicians' gifts direct to their alma maters. These givers now outnumber AMEF givers by more than four to one, and their gifts by nearly five to one.

However, it was pointed out that if all doctors gave to AMEF it might be an added inducement for businessmen to contribute to the cause of medical education through the National Fund for Medical Education.

All facets of the AMEF program were discussed at the meeting of the state AMEF committee chairmen in Chicago, on January 26, 1958, attended by James P. Murphy, M.D. Many of the states are reporting good success with stepped up personal appeal solicitation. These ideas will be reported on by Dr. Murphy at the next meeting of the Committee.

Much of the Chicago meeting was devoted to the great job the Woman's Auxiliary has done over the nation. This is especially true in Missouri, and the Committee wants to go on record in its thanks to the Auxiliary for its loyal help both on the state and the national level.

JAMES P. MURPHY, Chairman,
HUGH E. STEPHENSON,
DONALD F. GOSE,
T. REID JONES,
H. E. PETERSEN.

The Speaker referred this report to the Reference Committee on Medical Education.

The printed report of the Council and the report of the Council meeting of March 22 and 23, R. O. Muether, M.D., St. Louis, Chairman, follows:

THE COUNCIL

Meeting of April 3, 1957

The Council met in the Little Theater, Municipal Auditorium, Kansas City, April 3, 1957, immediately following adjournment of the House of Delegates.

W. S. Sewell, M.D., President, opened the meeting and, after election of officers, R. O. Muether, M.D., St. Louis, Chairman, presided.

The following officers were elected: R. O. Muether, M.D., St. Louis, Chairman; J. H. Summers, M.D., Lebanon, Vice Chairman; E. Royse Bohrer, M.D., Jefferson City, Secretary; Jerome I. Simon, M.D., St. Louis, Treasurer.

New members of the Council were introduced: B. L. Murphy, M.D., Hannibal, Second District; W. W. Tillman, M.D., Springfield, Eighth District.

Dr. Sewell invited the Council to hold its next meeting in Springfield, Dr. Tillman joining in the invitation. The invitation was accepted and the dates of June 15 and 16 were agreed upon.

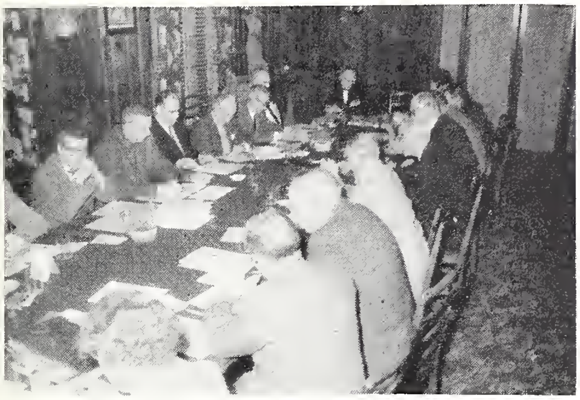
The report of the Committee on Fractures, dealing with a liberalization of the practice rights of chiropody, and which the Council did not approve was discussed briefly and it was reported that members of the Committee met with a group of chiropodists to explain the position of the Council and the chiropodists agreed to withdraw the legislation pending in the State Legislature on this subject. Dr. Francka said that a committee of the Missouri Chiropody Association had asked to appear at a later meeting of the Council and that he had granted the request.

The action of the House of Delegates in regard to P.L. 880 was reviewed. It was voted, on motion of Dr. Perry, that a statement of all facts regarding this problem be drawn up and sent to the Council, and probably to the full membership.

It was stated that some members of the St. Louis delegation had asked for consultation after the Council meeting to discuss the action on P.L. 880 and Drs. Perry, Tillman and Stauffacher and Mr. Skinner and Mr. O'Brien were asked to meet with these delegates.

Meeting of June 15-16, 1957

The Council met at the Kentwood Arms Hotel, Springfield, on June 15-16, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were: Drs. Muether, Donald M. Dowell, Chillicothe; B. L. Murphy, Hannibal; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; Walter W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Walter S. Sewell, Springfield; W. F. Francka, Hannibal; E. Royse Bohrer, Jefferson City; Joseph L. Fisher, St. Joseph; Carl F. Vohs, St. Louis; Joseph C. Peden, St. Louis; F. L. Feierabend, Kansas City; Durward G. Hall, Springfield; H. E. Petersen, St. Joseph; H. M. Hardwicke, Jefferson City; Messrs. James Foristel, Washington, D. C.; John W. Noble, Kennett; Dave Galbraith, Springfield; Lemoine Skinner, Jordon Singleton, Ray McIntyre, T. R. O'Brien and Miss Helen Penn, St. Louis.



The Council held periodic meetings during the year.

MINUTES

Minutes of the meetings of March 31, April 1 and April 3 were approved as mailed to members of the Council.

M.U. AWARD

The presentation of a plaque and a savings bond to the outstanding senior student of the University of Missouri Medical School was reported, Dr. Bohrer representing the Association for the presentation.

AAPS ESSAY

It was reported that the AAPS had requested sponsorship of an essay contest for them and that this had been referred to the Woman's Auxiliary but that they did not wish to enter the essay contest field again.

MAGP

It was reported that space and some secretarial service was now being furnished the Missouri Academy of General Practice, the Academy paying the Association for this.

TREASURER'S REPORT

The Treasurer's Report was presented, together with information on the possibility of using the Mercantile Trust Company as an Investment Managing Agency since government bonds which the Association has held are no longer available. On motion of Dr. Sewell, seconded by Dr. Dowell, it was voted that the Treasurer and Executive Secretary be instructed to set up an Investment Managing Agency with the Mercantile Trust Company.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported several component society meetings at which lawyers had met with the physicians and several that had had programs on economic subjects. He said there had been approximately twenty-five society meetings since the Annual Session, that he had attended about half of them. He reported on other special meetings and gave dates of future meetings, including cancer conferences, school workshops and scientific sessions. He reported on the placement service, pointing out that many small towns still wish to have physicians. He said that new hospitals were being considered in Aurora, Carrolltown, Fredericktown, Butler, Neosho, Doniphan and Mound City. A contract for a county hospital has been let in Houston, a hospital opened in Crystal City on May 15 and one will open in Albany in September. He said that at present one preceptee from the University of Missouri is with Dr. A. E. Spelman at Smithville. He also discussed future possibilities of this program and said he would talk with each Councilor on returned questionnaires on members offering to act as preceptors.

DIVISION OF HEALTH

Dr. Hardwicke discussed the work of the Division of Health and its new organizational set-up, stating that the Division must justify itself by the service it renders. He discussed infant mortality, possible screening surveys, poliomyelitis immunization and school immunization programs, tuberculosis control, nursing home inspection, hospital licensing, giving statistics in many instances. He stressed the need for community interest and responsibility in many fields rather than state and federal.

SALK VACCINE

The following excerpts from the report of the Committee on Infant and Child Care was presented:

"In view of the emergency situation that now exists, in that the remaining federal funds allocated to Missouri for the purchase of Salk vaccine must be used within a limited period of time or be forfeited, the Committee submits the following report and recommendation to the Council.

"While progress in the total poliomyelitis immunization program, utilizing both private commercial vaccine and the federally purchased supplies, can be considered substantial, Missouri is still below the immunization level deemed a satisfactory objective. There is a great continuing need for emphasis by physicians on the immunization program—both in the administration of vaccine on a private basis, and on an emergency basis during the next several months, looking toward complete utilization of all supplies of federally purchased vaccine still available to the state.

"In the approximately two years since federal funds became available for the purchase of Salk vaccine, Missouri has used only about 50 per cent of its allocation. The time available for use of the remaining allocation is about six to eight months, depending upon delivery schedules. It is the hope of the Committee that every effort will be made to use this vaccine within this time. This need for speed should be taken into account by the various component medical societies in considering the immunization program to be followed in their communities. In every case there should be no room for doubt in the public mind that the medical profession has made every effort to assure that immunization has been available to everyone provided for in the federal law, and the state's allotment of vaccine has been utilized to the fullest extent. It should be emphasized that this final effort to utilize the federally purchased vaccine is an emergency situation, and barring unforeseen events, it is the opinion of representatives of the Missouri Division of Health, the United States Public Health Service, and of the Committee that as far as government programs are concerned, poliomyelitis vaccination will take its normal place in the usual private practice of medicine after completion of this campaign. Thus the Committee recommends that:

RECOMMENDATION OF COMMITTEE

"1. The Missouri State Medical Association reaffirm its basic position that vaccination against poliomyelitis should be a part of the patient's overall personal immunization program, and that physicians should include polio vaccination with other immunization procedures on a year-round basis, except where medically contraindicated as in the event of a household contact with a current polio case.

"2. The Missouri State Medical Association and its component societies cooperate with the Missouri Division of Health to the fullest extent possible in the current 1957 campaign for immunization with Salk vaccine.

"3. In cooperation between the county medical societies and the Division of Health, an effort be made to again urge everyone to obtain immunization against polio in a physician's office on an individual basis, with such immunization offered both through use of federally purchased vaccine for persons under 20 and pregnant women with an optional small and reasonable charge for administration only, and through the use of commercial vaccine at the physician's usual charge.

"4. In areas where No. 3 does not produce the desired results, each county medical society should work with the Division of Health to develop a program for immunization utilizing the available federally purchased vaccine, either

"(a) By setting specific days and times for physicians in the community to hold special clinic hours in their own offices for the purpose of giving immunizations without charge to all those eligible who wish to come, with the cooperation of the Division of Health in providing suitable publicity, and in obtaining volunteers for the necessary clerical work involved.

"(b) Or, if this is not feasible, by the physicians in the community holding centralized public clinics of their own, without charge, for all those eligible, again with the cooperation of the Division of Health for publicity and clerical help.

"(c) Or, if neither of these is feasible, by calling on the Division of Health to set up its own clinic in the community, manned with its own personnel.

"(d) Or, by any combination of such methods.

"Dependent on the supplies of federally purchased vaccine available, the program decided upon should, of course, include provision for all three rounds of immunizations in the Salk series."

On motion of Dr. Francka, seconded by Dr. Dowell, the report was accepted.

CIVIL DEFENSE

The report of the Committee on Civil Defense was presented which included a report on poor handling of certain phases of the tornado disaster recently in Kansas City, and of more satisfactory handling in Desloge. The following actions of the Committee were presented:

1. That the Division of Health of Missouri cause to be made a comprehensive survey and study of the health and medical aspects of the Kansas City tornado catastrophe so that such information may be helpful in handling such similar future problems and in suggesting better basic local planning for possible future catastrophes.

Dr. Allen reported on Civil Defense to the Council.

On motion, this was voted approval by the Council.

2. That the Missouri State Civil Defense law be amended to include natural disasters and this action be recommended to proper authorities through proper channels.

After discussion, on motion, the Council voted that action on this be deferred until the results of the survey would be known.

3. That the Missouri Division of Health see that the Municipal League of Missouri is approached for time on their annual program where selected personnel may discuss civil defense and natural disasters.

On motion, this was voted approval by the Council.

4. Recommend that a top level civil defense speaker be included on the MSMA Annual Meeting program for 1958.

On motion, the Council referred this to the Committee on Scientific and Postgraduate Work.

A letter from the Division of Health stating that it was felt that the responsibility it was asked to take in organizing medical-health civil defense should also include natural disasters as well as enemy-inspired disaster and asking that a committee work with the Division in this organization was read. On motion of Dr. Tillman, it was voted to ask the Association's Committee on Civil Defense to act in this capacity.

LEGISLATION

A tabulation of the final results of the Missouri General Assembly was presented, giving legislation passed and that which was considered but not passed.

CHIROPODY

It was reported that further study by the chairman of the Committee on Fractures caused him to favor the action of the Council in not approving the Committee's report that favored chiropody legislation. It was said that a representative of the chiropodists wished to talk to the Council and this would be arranged at a later meeting of the Council.

P.L. 880

A letter from the Council of the St. Louis Medical

Society was read which criticized the Association for not publicizing the action of the House of Delegates which recommended opposition to implementing legislation on P.L. 880. Also presented was a digest of the law with explanations of it. On motion, discussion and action were deferred until the Sunday session to give each Councilor time to study the digest.

CANCER

It was reported that the Committees on Cancer and on Laboratory Medicine had met to explore the recommendation of the Committee on Cancer that a statewide cytological service for the study of cervical smears be established. The Committee on Laboratory Medicine will make recommendations to the Committee on Cancer at a later joint meeting of the two committees.

MEDICARE

A letter was presented which stated that the Department of the Army requested an extension of the present contract to September 1958. At that time the entire contract would be renegotiated. It was stated further that the law has been in effect only since December 7, 1956, and, as a result, insufficient knowledge is available at present to require a renegotiation of the entire contract. It was pointed out that the action of the House of Delegates was to "explore possibility of a no fee schedule" contract. After discussion, including information presented by Mr. Foristel, on motion of Dr. Tillman, seconded by Dr. Bull, it was voted that the requested extension be granted and that the possibility of having a "no fixed fee schedule" be explored when the time for renegotiating comes up in 1958.

VA CONTRACT

Request for renewal of the contract with the Veterans Administration for home town care was presented and discussion brought out that some members of the Association might prefer that this contract not be renewed because of the present fee schedule. On motion of Dr. Perry, it was voted that the contract be renewed and that a letter be written the VA requesting that the matter be reopened after the Committee on Medical Economics had had opportunity to study it.

CONFERENCE ON SCHOOLS

The biennial National Conference on Physicians and Schools at Highland Park, Ill., was announced and on motion of Dr. Sewell, seconded by Dr. Murphy, it was voted that the chairman and one other member of the Committee on Infant and Child Care be sent to the conference.

DOCTOR DRAFT

The action of Congress on the Doctor Draft law, making it now an extension of Selective Service and lowering the age at which a physician may be called into service was explained by Mr. Foristel.

P.L. 880

In discussion of P.L. 880 and the prepared statement given Councilors, it was brought out that no legislation could be considered prior to a possible called session early next year; that actions of the House of Delegates had not always shown the feeling of the membership; that vendor sytems had been used for some time by about one-third of the states and that probably under P.L. 880 many other states would use it; that the membership should be fully informed and have opportunity to express opinion. On motion of Dr. Tillman, seconded by Dr. Murphy, it was voted that material, possibly with questionnaire, should go to the membership, the timing probably for the fall since members would be more likely to read it then, and there would be more opportunity for discussion at county society meetings.

AMA

Dr. Feierabend reported on the June session of the American Medical Association and it was stated that a report will appear in the August issue of MISSOURI MEDICINE. He recommended that a committee be appointed to work with the AMA delegates that the Missouri delegates would have opportunity to became better acquainted with other delegates and show hospitality to them. On motion of Dr. Francka it was voted that the Chairman of the Council appoint such a committee. Dr. Feierabend recommended that a special assessment for monies for AMEF be levied. On motion of Dr. Francka, it was voted that this be referred to the Committee on AMEF.

ANNUAL SESSION

A report of Dr. Kiene, chairman of the 1957 program committee, together with letters he had requested from his committee members, was discussed. It was the consensus of the Council that in spite of the decreasing attendance at the last session and at the scientific program, the scientific phase should be continued. Discussion brought out the desirability of having the entire meeting in one place; more time given for organization work, especially reference committees, so that they do not overlap the scientific portion; not so many well-known names needed; use of more refresher courses and panels; scientific sessions should start at a later hour.

THANKS TO DR. AND MRS. SEWELL

Thanks were expressed to Dr. and Mrs. Sewell for the dinner and party to which the Councilors and their wives were invited on Saturday evening, and Dr. Tillman for his hospitality.

Meeting of September 21-22, 1957

The Council met at the Coronado Hotel, St. Louis, on September 21-22, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were: Drs. Muether, Donald M. Dowell, Chillicothe; J. C. Creech, Troy; Bryon M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; W. W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton; Walter S. Sewell, Springfield; W. F. Francka, Hannibal; E. Royse Bohrer, Jefferson City; Jerome I. Simon, St. Louis; Joseph L. Fisher, St. Joseph; James P. Murphy, St. Louis; James G. Janney, Jr., St. Louis; H. M. Hardwicke, Jefferson City; Thomas H. Alphin, Washington, D. C.; Messrs. David L. Galbraith, Springfield; John Noble, Kennett; Hollister Smith, Lemoine Skinner, Ed Schneider, Ray McIntyre, Bill Logan and T. R. O'Brien, St. Louis. Sunday: Drs. Ronald Elkins, Springfield; Leonard T. Furlow, St. Louis.

MINUTES

The minutes of the meeting held June 15-16 were approved as mailed to the members of the Council.

SECRETARY'S FOLDER

Mr. O'Brien introduced Mr. Bill Logan, a new member of the MSMA staff.

Mr. O'Brien reported to the Council that the Association had entered into an Agency Agreement with the Mercantile Trust Company and that $10,000 had been invested in treasury notes to replace the Series G and K Government bonds which are no longer available.

Mr. O'Brien presented a request from the National Society for Medical Research for a donation. On motion of Dr. Perry, seconded by Dr. Dowell, it was voted the annual donation of $50 be made.

A supplemental appropriation was requested by Mr. O'Brien for furniture and fixtures for the office, in view of the added personnel. On motion of Dr. Sewell, seconded by Dr. Tillman, an additional $1,500 was authorized for the purchase of desks, adding machine, typewriter, and chairs.

Mr. O'Brien discussed the possibility of instituting a new billing procedure for the office. He explained that he had checked into the IBM system. Using IBM or another method which was described would involve doing the billing for the county, state and A.M.A. at one time, thus eliminating some of this work for the county society secretaries. After discussion, it was suggested by Dr. Perry that the new method, if any, be worked out with the county societies which are mainly involved, namely, St. Louis City, St. Louis County and Jackson County.

On motion of Dr. Tillman, seconded by Dr. Bohrer, it was agreed to authorize up to $150 for the preparation of new billing forms, in the event the present method is changed.

TREASURER'S REPORT

Dr. Simon reported on the finances of the Association and suggested that the Council authorize the investment of $20,000 based on recommendation from our financial advisor, the Mercantile Trust Company.

On motion of Dr. Simon, seconded by Dr. Sewell, it was voted to secure a recommendation from our financial advisor, the Mercantile Trust Company for investing $20,000 in securities.

On motion of Dr. Sewell, seconded by Dr. Dowell, the Treasurer's report was accepted.

ASIAN FLU

Dr. Hardwicke reported briefly on the first nationwide meeting on Asian influenza held August 11 in Kansas City. Dr. Perry represented the MSMA at this meeting.

Dr. Hardwicke discussed a proposed press release concerning the meeting called by him September 10, of an Advisory Committee in Jefferson City, as follows:

"On September 13, Dr. H. M. Hardwicke, Acting Director of the Division of Health, met in Kansas City with representatives of licensed manufacturers of Asian influenza vaccine. The purpose of the meeting was to discuss ways and means of implementing recommendations of the influenza advisory council.

"Local representatives of the manufacturers agreed to cooperate fully with the priority system as established by the council. Those attending the meeting in Kansas City recognized, however, that a great portion of the responsibility for enforcing any distribution program would rest with hospital administrators and practicing physicians in the state. Personnel of departments of government eligible for vaccine will be certified to by the Division of Health and may purchase directly from the manufacturers. Vaccine will be administered to certified government personnel by practicing physicians of their choice.

"The great majority of persons eligible for vaccine under the approved distribution program will be at the municipal and county level where certification by the Division of Health would not be practicable. Available vaccine will, therefore, be distributed in an equitable fashion to pharmacies, hospitals, and practicing physicians. Pharmacies have, through the offices of the Missouri Pharmacy Board, agreed to distribute only to practicing physicians who will immunize those persons covered by the priority system.

"Hospital administrators have, through the Missouri Hospital Association, agreed to cause only those employees considered essential to the operation of the hospital to receive vaccine.

"The Missouri State Medical Association and the Missouri Association of Osteopathic Physicians have both agreed to abide by the priority system as developed at the September 10 meeting of the influenza advisory council.

"Since Asian influenza vaccine will continue to be in short supply for some time, and:

"Since Asian influenza in epidemic proportions is potentially serious only because of the large number of people affected and not because of the severity of the individual case:

"The Division of Health felt it advisable to follow recommendations of the office of the Surgeon General of the United States Public Health Service and cause to be established priority systems and recommendations which would tend to insure the continuity of essential community services in the event of an epidemic."

On motion by Dr. Tillman, seconded by Dr. Sewell, the Council approved the release of Dr. Hardwicke's proposed press release.

On the motion of Dr. Summers, seconded by Dr. Bohrer, the Council also approved Dr. Allen's report on the September 10 meeting. Dr. Allen, MSMA representative on the Asian Flu Advisory Committee, was unable to be present to read his report, which follows:

REPORT OF THE SPECIAL ADVISORY COMMITTEE TO THE DIVISION OF HEALTH REGARDING ASIAN FLU

The meeting held September 10 at the Governor Hotel, Jefferson City, was called so medical leaders could decide what plans were needed to cope with the anticipated Asian flu epidemic. Dr. Henry A. Hardwicke, acting Director of the Division of Health, called the meeting.

Those present were: Dr. William C. Allen, Glasgow, chairman of the Civil Defense Committee, MSMA; Dr. A. E. Spelman, Smithville, chairman of the Rural Medical Service Committee of MSMA; Mr. Bill Logan of the Association staff, and representatives of 16 other health and interested groups.

ACTION

1. The special advisory committee of 26 persons decided the emphasis should be placed on "home care." In other words, the public will be encouraged to stay at home when suffering from Asian flu rather than attempt to gain admittance to the hospital.

2. Due to the fact that our hospitals now operate at about 90 per cent capacity and a large majority of the public have voluntary hospital insurance of one type or another, it was felt that in event of an epidemic of influenza, if uncomplicated cases of influenza were eligible for hospitalization under the voluntary insurance, a major problem would result. Thus it was recommended that a special committee be appointed to contact and meet with representatives of the various voluntary hospital insurance companies to determine what could be worked out.

3. The committee also adopted a recommended priority list for the vaccine shots which are expected to be in short supply for some time to come. While the committee realized there is no way compliance can be required, it thought the priority list would give the individual physician a guide to go by. The list also will be stressed to the public in an effort to gain its cooperation.

RECOMMENDATIONS

The special advisory committee to the Division of Health believes that although an epidemic of Asian influenza may develop in this area during the fall and winter months, there is no occasion for panic.

Except for occasional complications which might occur in cases of very young, aged or debilitated persons, the disease is mild and requires no intensive medical care.

The committee recommends that uncomplicated cases be cared for at home, as the safest and most effective method of treatment. They point out that a simple case of influenza is more likely to run into serious complications in the hospital through unavoidable cross infections.

Even should complications occur in a case at home, modern drugs would be adequate in most instances to treat the disease without hospitalization.

The committee urges the Division of Health and all interested agencies to work together in informing the public of these facts and in asking doctors and hospitals to establish firm hospital admission policies that would allow only Asian influenza cases *with complications* to be hospitalized.

Asian influenza vaccine is being manufactured with all possible speed, but it will not be available at this time for all who would like to be immunized.

Therefore, in the interest of health and the public safety, the advisory committee to the Division of Health recommends that a system of priorities be established to assure an equitable distribution of available vaccine to persons engaged in essential services or those whose life and health might be jeopardized by the disease.

It is urged that full explanation of reasons for these priorities be given to the public, so that its full cooperation may be secured. Unless the public assumes its share of this responsibility, essential health services could be crippled and the entire community disrupted.

Therefore, the committee recommends the following priorities:

1. Medical and supportive personnel actively engaged in the case of patients.
2. (a) Public Health personnel.
   (b) Inactive personnel trained in the care of patients who would be available for duty in the case of an epidemic.
   (c) Training, recruiting, and other essential personnel, and volunteers of the American Red Cross, who are certified by Red Cross to receive vaccine.
3. Police, firemen, prison guards, attendants, and caretakers of eleemosynary institutions, and the national guard.
4. Essential community services, such as public utilities and sanitation.
5. Persons with tuberculosis and others who in the opinion of the physician constitute a special medical risk.
6. Since other basic community services vary from place to place it is recommended that each community establish advisory committees broadly representative in nature to consider which additional groups are deemed necessary to maintain services within the community.

It was decided that Dr. Hardwicke should be the person to call for the "advisory committees" mentioned in No. 6. He would do it when, and if, he thought one was needed.

SUPPLY OF VACCINE

It seems Missouri is to receive 2.5 per cent of the national supply. So far about 25,000 cc. have been received by Missouri druggists. Dr. Hardwicke indicated he would seek the cooperation of the six licensed manufacturers concerning distribution of the vaccine. Ideally, it would go out in small quantities to all doctors ordering it, rather than large shipments to commercial establishments and so on. The drug houses now hope to have produced 85 million cc. by the end of January. This is slightly above the earlier predictions.

RECOMMENDED DOSAGE

Pre-school children (3 months to 5 years)—0.1 cc. intracutaneously or subcutaneously, repeated after an interval of one to two weeks.

A panel on "Chest Diseases" was a part of the scientific program.

For children 5 to 12 years of age—0.5 cc. subcutaneously, repeated after an interval of one to two weeks.

For children of 13 years of age and older, the dose for adults (1.0 cc. subcutaneously in a single injection) may be used.

The statistics available indicate that the shot is about 70 per cent effective. It definitely should not be given to persons with an egg allergy.

The Division of Health plans to have a weekly release on the subject to encourage persons to take their shots. The various organizations will be kept informed through their representatives on the advisory committee.

The Council disapproved suggested copy for an Asian flu brochure to be distributed by Blue Cross-Blue Shield channels. Instead they adopted a statement prepared by a special committee, that could be used if any organization so desired. The statement is as follows:

"An epidemic of Asian influenza may develop in this area during the fall and winter months.

"The disease is generally mild and requires no intensive medical care.

"Should symptoms of the disease appear—they are those of sore throat, fever, general aches and pains and a feeling of fatigue—don't be alarmed. Go to bed. Call your physician."

The committee consisted of Drs. Hardwicke and Dowell, Mr. Skinner, Mr. Logan and Mr. Schneider.

A motion to adopt the committee's statement was made by Dr. Tillman, seconded by Dr. Stuart, and unanimously approved.

On motion of Dr. Tillman, the Council also decided to send Dr. Allen's report to all the doctors by a special mailing. It is to be accompanied by a covering letter discussing the many problems, such as why the doctors can't get the vaccine, how to handle the problem with their patients, and so on. The covering letter also will extract part of Dr. Hardwicke's approved press release.

Mr. Logan discussed what the October issue of MISSOURI MEDICINE would have on Asian flu.

FIELD SECRETARY'S REPORT

Mr. McIntyre presented a report on present hospital construction information over rural Missouri, the majority of which are making use of federal funds available through the Hill-Burton act. He discussed special meetings which he attended recently, among these the meeting of State Committee for National Farm-City Week, the P. R. Conference of the A.M.A., and School-Health Workshops, along with a number of regular county society meetings in Missouri.

He reported that ten students out of 33 seniors at the University of Missouri School of Medicine have elected to participate in the Preceptorship program.

He also reported that 25 physicians have located in rural Missouri communities during 1957 to date.

Mr. McIntyre reported that in some communities where hospitals are being built with local funds, physicians had been asked for large donations, somewhat out of line with donations by other local sources.

He also urged the county medical societies as well as the State Association to work with the Woman's Auxiliary more closely and urged the doctors to study what is going on around the state in medical public relations and other organizational activities and help to promote those which seem sound and effective.

STUDY OF KANSAS CITY TORNADO

The report of the Committee on Civil Defense, considered by the Council at the June meeting, contained a recommendation that a study be made of the type of medical care rendered and the handling of patients involved in the recent tornado near Kansas City. It was suggested that the study be made by the State Division of Health. The acting Director of the Division of Health is unable to make such a study because of lack of funds.

On motion of Dr. Stuart, seconded by Dr. Creech, it was agreed to notify the MSMA Committee on Civil Defense that the Division of Health would be unable to make the study.

NURSING HOMES AND HILL-BURTON PROGRAM

Dr. Hardwicke reported on the new nursing home law in Missouri. He stated that plans have been approved and money allocated to build 856 additional beds for nursing home patients. The number of older people is increasing rapidly and much planning has to be done to see that the problem of facilities for them will be adequate in the future.

It was pointed out that responsibility for caring for the chronically ill and the aging should be put back into the local community.

Dr. Hardwicke reported that a satisfactory arrangement has been worked out with one or two of the state mental hospitals to transfer nursing home patients who are mentally ill in exchange for mental hospital patients who require only nursing home care.

It is his opinion that a factual analysis should be made of the present allocation of Hill-Burton funds to determine whether more of it should be assigned to erection of institutions for chronically ill rather than acutely ill persons.

He brought up the need of securing greater cooperation from the medical profession relative to periodic visits to nursing homes to be made by physicians. He agreed to have prepared a factual article for publication in MISSOURI MEDICINE which will outline the nursing home law and the responsibilities of the medical profession in relation to it.

On motion of Dr. Francka, seconded by Dr. Dowell, it was agreed that the Association go on record as favoring a study of the Hill-Burton law and its present application in Missouri.

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY PETITION

Mr. O'Brien presented a petition from the Franklin-Gasconade-Warren County Medical Society to transfer from the Fourth Councilor District to the Fifth Councilor District, as follows:

"Whereas, The Franklin-Gasconade-Warren County Medical Society has passed a resolution by unanimous vote to submit this petition to the Missouri State Medical Association, and

"Whereas, This action was taken because of the greater interest in the activities and professional programs of a post-graduate nature being offered by the University of Missouri Medical School, and

"Whereas, Two of the Counties concerned were formerly a part of the Fifth and were transferred to the Fourth Councilor District at the time of hyphenation of the Society, and

"Whereas, There is no opposition or known reason to prevent this action,

"Therefore, The Franklin-Gasconade-Warren County Medical Society respectfully presents this petition to the Council and the House of Delegates of the Missouri State Medical Association for approval and transfer of the said Society from the Fourth to the Fifth Councilor District of the Association.

s/ M. S. WEPPRICH, M.D., *President*
PAUL A. BRENNER, M.D., *Secretary*"

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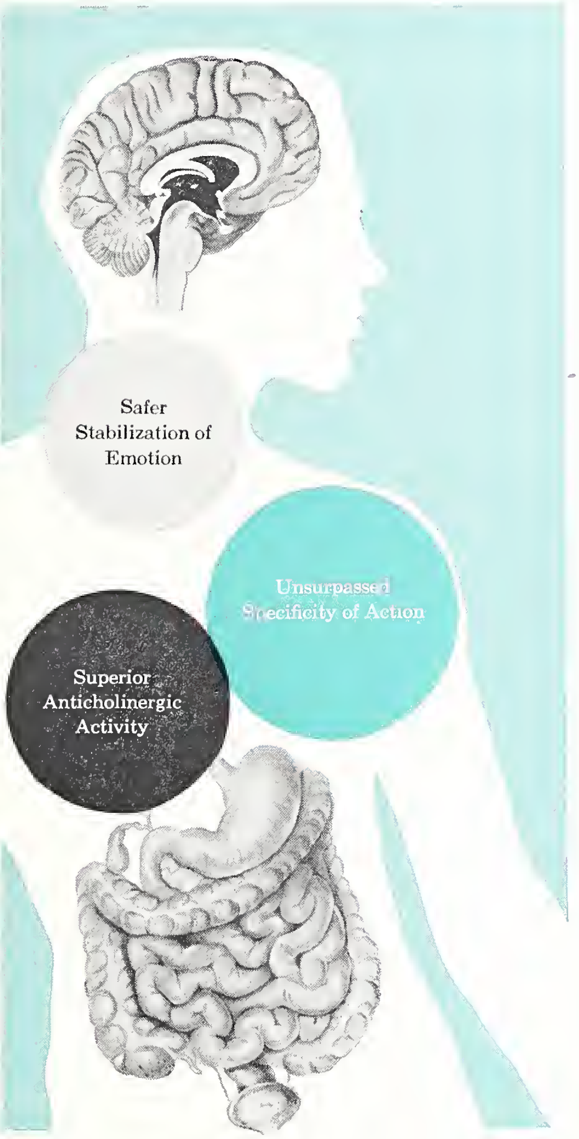
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After discussion, a motion was made by Dr. Sewell, seconded by Dr. Dowell, that it be referred to a committee of the Council at its next meeting. The following committee was appointed: Drs. Summers, Chairman; Stuart, Creech, Bohrer, Stauffacher and Dr. Muether as ex-officio.

MENTAL HEALTH

Mr. O'Brien presented the report of the Committee on Mental Health in the absence of Dr. Guhleman who was unable to be present. Following is the report:

"The committee members reviewed the new mental health legislation (S.B. 59 and S.B. 60) passed by the 69th Missouri General Assembly and signed by Governor James T. Blair. This legislation provides that the Director of the Division of Mental Diseases shall be appointed, not by the Governor as in the past, but by a new 5-member State Mental Health Commission, at least three of whose members 'shall be skilled in the treatment of nervous and mental diseases.' The legislation provides that the Director shall be 'a person competent in the field of mental diseases, administration and program planning,' and that his salary shall be up to $25,000 annually.

"The committee members explored possible ways in which they might be of assistance in the new program. After discussion, a motion was made, seconded and passed unanimously that a statement revised in accordance with suggestions of the members be sent, after approval by the committee chairman, to the Chairman of the State Mental Health Commission.

"Accordingly, the following letter and statement were mailed September 10 to the Chairman of the State Mental Health Commission, Mr. Powell B. McHaney:

" 'Because of the work you and your fellow commissioners are just beginning has such great potential for the welfare of the people of our state, I wish to take the opportunity to convey the thanks of the Mental Health Committee of the Missouri State Medical Association to the members of the State Mental Health Commission for accepting such an important and challenging undertaking.

" 'The enclosed statement by the Mental Health Committee, which the Committee drafted at a recent meeting in Jefferson City, expressed our feelings toward the program the commission will guide and the problems it faces, as well as our thoughts regarding those steps already taken.'

STATEMENT

"The first step toward improvement in our state's care and treatment of the mentally ill was taken when the 69th Missouri General Assembly passed and Governor James T. Blair signed the new mental health law. The qualifications established by that law for the new State Mental Health Commission and for the new Director of the Division of Mental Diseases to be appointed by the commission point the way toward a truly enlightened and scientific mental health program for Missouri.

"The second step has recently been taken with the appointment by Governor Blair of a well-qualified Mental Health Commission. To its members should go the thanks of Missouri for accepting the great responsibilities and challenges of service on this pioneering state agency.

"Basic to the new legislation and to the new program is the principle that *all* services and *all* functions of the Division of Mental Diseases are to be aimed at a single objective—the most effective treatment and care of persons who are mentally sick.

"We wish therefore, to state again in substance that which we and the House of Delegates of the Missouri State Medical Association stated at the time the new legislation was under discussion and consideration. The intent of the legislation and the purpose of the program can best be effected by placing those services and functions under the direction of one whose education, training and experience have been in the treatment and care of the mentally ill. For that reason, we believe that the post of Director of the Division of Mental Diseases—which is so vital to the well-being of thousands of mentally-sick persons and to the welfare of their families—should be filled by a psychiatric physician of outstanding professional accomplishments.

"Such an appointment will be the third major step toward a new era in the care and treatment of the mentally-ill of our state.

"To determine the needs of the new mental health program and make plans for filling those needs, the Division of Mental Diseases will require a central staff of well-qualified personnel. In order to enable our state's urgently-needed program to make a good start as soon as possible, we urge that a request for an appropriation of funds sufficient for such a staff be included in the Governor's message at such time as he calls a special session of the General Assembly.

"The Committee members also reviewed the change brought about by the Legislature's passage of S.B. 53, which requires one authorized person's signature, instead of two as in the past, on forms for involuntary commitment of patients to state mental hospitals.

"There was discussion of the benefits allowed by the Blue Cross Plans in St. Louis and Kansas City for patients hospitalized for mental and nervous illness, compared with the benefits for other patients. A motion was then made, seconded and passed unanimously that the Committee present to the Missouri State Medical Association a statement of the Committee's position that it should be the policy of the Missouri State Medical Association that hospital benefits for patients suffering from mental and nervous illness be the same as those for other patients.

"It was suggested that the Committee let the newly-established State Mental Health Association know that the Committee welcomes the association and offers its cooperation."

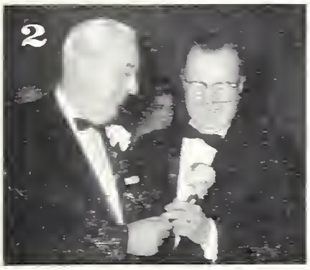
On motion of Dr. Stuart, seconded by Dr. Perry, the report was approved by the Council.

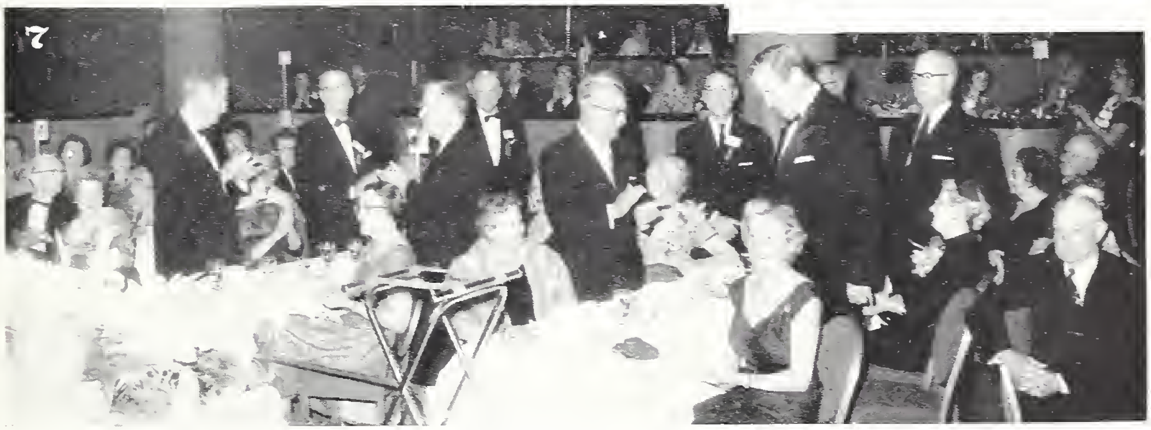
LEGISLATION

A letter was received from the State Department of Education regarding the Vocational Rehabilitation program. The letter proposed a meeting between representatives of MSMA and the Missouri Osteopathic Association, with representatives of the Vocational Rehabilitation Section. The purpose would be to discuss changes in regulations regarding examinations and treatment of patients under the jurisdiction of the Agency.

The Council authorized Mr. O'Brien and Dr. Elliott O'Reilly, Chairman of the MSMA Committee on Physical Medicine and Rehabilitation, to attend the meeting and report back to the Council.

The joint licensure bill was discussed and on mo-





(1) The speaker's table was in three tiers, the officers of the host societies and the president of the Woman's Auxiliary at the upper tier, the President and President-Elect and the speaker at the center tier and officers of the Association at the lower tier. All officers were accompanied by their wives.

(2) Dr. Sewell presented the traditional gavel to Dr. Francka.

(3) Dr. Gunnar Gunderson, President-Elect of the American Medical Association, was the guest speaker.

(4) At the center tier were Mrs. Francka, Dr. Francka, Dr. Sewell, Dr. Gundersen and Mrs. Sewell.

(5) At the upper tier were Dr. and Mrs. Nielson, Dr. and Mrs. Bauman, and Dr. and Mrs. Drescher.

(6) The Greene County Medical Society presented "Your Medical Hit Parade of 1958" following the address by Dr. Gundersen.

(7) Past Presidents of the Association were seated together and visited during the intermission between the speaker and the show presented by the Greene County Medical Society.

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...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]...6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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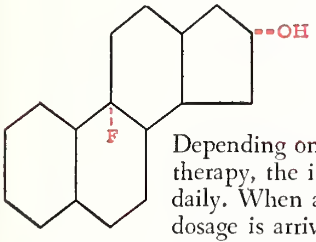

Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

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tion of Dr. Sewell, seconded by Dr. Dowell, it was agreed to appoint the following committee to meet with an Osteopathic Association committee to discuss possible joint licensure legislation: Drs. Muether, Tillman, Creech, Dowell, Perry, Francka and Sewell.

AMEF

Dr. Murphy presented the report of the Committee on American Medical Education Foundation as follows:

"The purpose of the meeting was (1) to consider and act on request from the Council for recommendation on whether or not the Council should propose to the House of Delegates that an assessment for AMEF be levied against MSMA membership; (2) to map plans for 1957 AMEF campaign in Missouri.

"It was explained that Missouri State Medical Association delegates to the 1957 annual meeting of the American Medical Association had suggested to the MSMA Council that action be taken to assess MSMA members for AMEF along the line followed by Illinois and a few other states. There was a general discussion by Drs. Murphy, Jones, Petersen and Stephenson. Opinions were expressed that an MSMA assessment for AMEF would not be well received by doctors at this time close on the heels of the recently-authorized MSMA dues increase, particularly since the latter action was taken only after considerable debate in the House of Delegates. There were also expressions that an assessment for AMEF would tend to reduce the number and amounts of physicians' gifts to their alma maters and that doctors generally prefer to be able to earmark their contributions. It was pointed out, as a factor in favor of the assessment method, that if all doctors gave to AMEF it would be an added inducement for businessmen to contribute to the cause of medical education.

General sessions were well attended.

"Dr. Murphy reported there has been a small, constant increase in AMEF contributions by Missouri doctors since the annual campaign was started about five years ago. In 1956, a total of 229 Missouri doctors and auxiliaries gave $7,484 to AMEF, while 929 physicians contributed $41,993 direct to the medical schools from which they had graduated.

"About one-fourth of all doctors in the state contributed. The Committee members were of the opinion that grass roots support for a mail appeal to MSMA members could be encouraged by asking presidents of all county societies to explain the need for AMEF contributions at their meetings and by inviting editorial backing in County Society Bulletins. The consensus was that the MSMA appeal for contributions should be tied in with the national AMEF campaign.

"The Committee recommended that the MSMA fund-raising activity for AMEF be continued for the present on a voluntary basis.

"The Committee approved the mailing of a letter to all MSMA members asking for AMEF contributions at a time that would fit best with the national AMEF campaign. The members also recommended that suitable materials be sent in advance of such mailing to presidents of all County Societies and Editors of County Society Bulletins asking their support." (The following day Dr. Murphy telephoned Mr. John W. Hedback, Executive Secretary of AMEF. Mr. Hedback stated that the AMEF annual report would be mailed to all former contributors in September, that AMEF would make a direct-mail appeal in October to doctors who had given in 1958 and had not contributed in 1957, and that AMEF would in November send out a follow-up letter pointing out the tax-deduction advantages of AMEF contributions. There would also be AMEF advertisements in certain medical publications during this period. Dr. Murphy accordingly directed the staff to send out the MSMA letter for AMEF contributions in early September and to distribute the materials to the Presidents of the County Societies and the Editors of the County Society Bulletins in mid-August.)

On motion of Dr. Sewell, seconded by Dr. Creech, the report was accepted.

On motion of Dr. Sewell, the thanks of the Council were expressed to Dr. Murphy and his committee for their efforts in behalf of AMEF.

1958 ANNUAL SESSION

Dr. Janney presented the report of the Program Committee for the 1958 Annual Session stating that the program was shaping up very nicely, that most of the speakers had accepted, although some of the outstate speakers had declined and replacements will have to be decided upon. He mentioned several organizations that were interested in the Wednesday morning program, such as the Heart and Diabetes Associations and also the Civil Defense Committee.

Mr. O'Brien explained that it was deemed advisable by the Committee to start all morning programs at 10:00 a.m. This change will provide more time for reference committee meetings.

On motion of Dr. Bull, seconded by Dr. Stauffacher, the report of the program committee was accepted.

BUDGET COMMITTEE

The following members were appointed to serve on the Budget Committee: Drs. Simon, Chairman; Sewell, Francka, Perry and Bull, Dr. Muether, ex-officio.

M.U. AWARD

A letter was presented by Mr. O'Brien commending the action of the Association in presenting the award to the outstanding medical student of the senior class at the University of Missouri in 1957 and requesting consideration be given to extending it to include the other medical schools. After discussion, and on motion of Dr. Bull, seconded by Dr. Sewell, it was decided that the top graduate of the three medical schools in the State of Missouri be given annually a suitable award.

PREPAYMENT MEDICAL CARE PLANS

A letter inviting representatives to attend the House of Delegates meeting of Michigan State Medical Society was read. This is of special interest because the Michigan Association will report results of an opinion research study made in Michigan. The study includes direct contact with the public and the medical profession regarding benefits to be included in prepayment plans. The St. Louis Blue Shield plan had authorized Mr. O'Brien to attend. It was requested that a report of the results be sent to Councilors, Officers and others in addition to Blue Shield Board members.

A.M.A. INTERIM SESSION

Mr. O'Brien called attention to the A.M.A. Interim Session which will be held in Philadelphia, December 3-6, 1957.

VENDOR PROGRAM

Mr. O'Brien reviewed the action of the House of Delegates and read the resolution from the Council Report to the House of Delegates at the last Annual Session in regard to the Vendor Program in Missouri. He stated that the medical profession should consider this carefully and decide what their position should be as there is a possibility that this will come up in the Special Session of the Legislature in 1958; if not, it will surely come up in the regular session in 1959. He explained the present Missouri program regarding public assistance.

Dr. Tom Alphin, head of the A.M.A.'s Washington office, discussed the 1957 act of Congress relating to changes in Public Law 880, Vendor Payments and how some of the states are planning to use the new program.

He explained the pending act No. H.R. 9467, known as the Forand bill, which provides hospitalization and surgical care for social security recipients. The cost of these new benefits are to be paid for by increasing the present base of $4200 to $6000 plus an increase in the tax. This bill will be considered by the Congress during 1958.

Dr. Alphin discussed the Jenkins-Keogh bill and the possibility of its passage in 1958, in addition to other highlights pertaining to the national legislative scene.

A motion was made by Dr. Tillman, seconded by Dr. Stuart, that the Association go on record as opposing the Forand bill and that the membership of the Association be informed, through MISSOURI MEDICINE, relative to this bill.

On motion of Dr. Sewell, seconded by many, it was decided to send a letter and flowers to Helen Penn expressing the good will of the Council and Officers of the Association.

Meeting adjourned at 2:30 p.m.

Meeting of November 23-24, 1957

The Council met at the Coronado Hotel, St. Louis, on November 23, 24, 1957, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were Drs. Muether; B. M. Stuart, Boonville; Ralph Perry, Kansas City; W. W. Tillman, Springfield; Ben M. Bull, Ironton; W. S. Sewell, Springfield; W. F. Francka, Hannibal; Jerome I. Simon, St. Louis; Joseph C. Creech, Troy; Messrs. John W. Noble, Kennett; T. R. O'Brien, Ray McIntyre, Bill Logan, Lemoine Skinner, Ed Schneider, St. Louis; Helen Penn, St. Louis; Drs. J. H. Summers, Lebanon; Joseph E. Flynn and C. K. Leeper, Columbia; H. M. Hardwicke, Jefferson City; Durward G. Hall, Springfield, attended the Saturday session. Drs. Donald M. Dowell, Chillicothe; B. L. Murphy, Hannibal; Joseph C. Peden, St. Louis, and Hollis Allen, St. Louis, attended the Sunday session.

DUES NOTICES

The new dues notice form, approved by the Council and by the larger medical societies, was shown to the Council.

FIELD SECRETARY'S REPORT

Mr. McIntyre reported on meetings which he and Dr. Sewell had attended, Dr. Sewell addressing the membership on organization affairs and problems facing the medical profession. He said they had been to the Grand River Medical Society, the Jasper County Medical Society, the Chariton-Macon-Monroe-Randolph County Medical Society, the Dunklin County Medical Society and a semi-district meeting at Sedalia. He stressed the importance of these meetings and the interest shown by the members. He suggested that, in the future, Presidents address Councilor District meetings during the year since going to all component societies is almost impossible but the value of such meetings should not be lost. Dr. Sewell concurred with the report and the suggestion. Mr. McIntyre reported that three preceptees are with physicians at the present and that three or four will go out before June.

TREASURER'S REPORT

Dr. Simon reported on the finances of the Association and said that $20,000 had been invested by the Association's financial advisor, the Mercantile Trust Company. On motion of Dr. Francka, duly seconded, the Treasurer's report was accepted.

MEDICARE

Mr. O'Brien reported that through October 31, there had been 3,223 claims paid in the amount of $247,567.26 in the St. Louis area; 2,598 claims paid in the amount of $175,144.80 in the Kansas City area.

It was stated that the State Medicare Committee has handled 104 cases, with 47 completed and payment authorized, 22 referred and payment recommended and that the rest are pending. The work of the Committee was outlined by Dr. Simon and Mr. O'Brien. The position of the House of Delegates that the possibility be explored of renegotiating on a no fee basis was reviewed and it was pointed out that a session of the Philadelphia meeting of the A.M.A. will be devoted to the subject of Medicare. Missouri's contract will be up for renegotiation next September. The handling in other states was reviewed and it is believed that Florida, which has an early renegotiating date, will attempt to have a contract on a no fee basis. Dr. Tillman asked if it would be possible to have a representative from the Washington Medicare Department at the Annual Session and this was approved by the Council.

FORAND BILL

It was stated that material on the Forand Bill had been carried in the October and November issues of MISSOURI MEDICINE and another item will be carried in the December issue. It was said that reprints of the President's Page from the November issue will be sent to component societies with the request that this be discussed by these groups. An article from the St. Louis *Labor Tribune* was read, denoting approval of the bill by the AFL-CIO. Information released by the A.M.A. was called to attention and it was pointed out that the A.M.A. was attempting to enlist the interest of other organizations. It was stated that the American Hospital Association had not taken a stand on the bill and it was suggested that individual hospitals might influence the Missouri Hospital Association and the American Hospital Association.

BUDGET

Dr. Simon presented the following budget, which on motion of Dr. Sewell, seconded by Dr. Francka, was approved:

Salaries	$ 56,108.00
Office rent and light	4,700.00
Postage	5,000.00
Printing, Stationery and office supplies	4,500.00
JOURNAL Expense (paper and printing)	35,500.00
Telephone and Telegraph	2,000.00
Insurance Retirement Plan	2,700.00
Professional Fees	2,700.00
Taxes, payroll	1,630.00
Travel Expenses (Executive, Field and Assistant Secretary)	6,500.00
Committees and Meetings	32,700.00
General Expenses	3,500.00
Furniture and Fixtures	1,500.00
Total	$159,110.00

COUNCIL MINUTES

It was suggested that reprints of Council minutes would be of value to Councilors in talking with members and it was suggested that this be explored.

CYTOLOGY SERVICE

Dr. Flynn presented the following minutes of a combined meeting of the Committees on Cancer and Laboratory Medicine held on November 10.

"*Presiding:* Marvin L. Napper, M.D., Springfield.

"*Present:* Drs. Napper, Joseph E. Flynn, Columbia; C. W. Meinershagen, Jefferson City; Charles E. Lockhart, Springfield; Angelo Lapi, Kansas City; C. K. Leeper, Columbia; Thomas M. Martin, O. E. Hagebusch and George A. Carroll, St. Louis; Mr. Harry Dawdy, Jefferson City; Mr. Ray McIntyre, St. Louis.

"*Purpose:* To receive, discuss and act upon a proposed program from the Laboratory Medicine Committee for 'the establishment of a state-wide cytological service for the study of cervical smears.'

"*Discussion:* In review, by Dr. Flynn, it was pointed out that the Council of the Missouri State Medical Association last spring referred the problem of exfoliative cytology in the State of Missouri to the Laboratory Medicine Committee for consideration following some preliminary discussions between the Chairmen of the Laboratory Medicine and Cancer Committees.

"The two committees met jointly on May 26 to discuss Missouri's cytology problems. Dr. Flynn stated that on the basis of this joint meeting and other meetings held jointly with the State Division of Health and the American Cancer Society (Missouri Division) representatives, the Laboratory Medicine Committee has concluded the complaints stem largely from a lack of information on the part of a few practicing physicians, particularly in rural areas.

"Accordingly, the Laboratory Medicine Committee has been working on a three phase plan to be submitted for approval today by this joint meeting and then to the Council of the Missouri State Medical Association for its consideration.

"The plan follows:

"The first phase is to disseminate information as to how to take the smears, techniques of handling the slides and what the results mean. Extensive use would be made of movies and lectures at hospital staff meetings and at County and District Medical Society meetings. The film to be shown, made by the American Cancer Society, is "Uterine Cancer—The Problem of Early Diagnosis" with running time 22 minutes. Teams, consisting of a pathologist and a gynecologist, will be established in each region of the state and will be used to conduct this teaching phase at the meetings referred to above. It is anticipated that some financial aid to help defray the costs of this proposed educational program will be forthcoming from the Cancer Society.

"It is further proposed that the Laboratory Medicine Committee have a booth at the MSMA Annual Session in April, 1958 to promote this cytology campaign. Committee members would man the booth.

"The second phase is to develop training centers for cyto-technologists to help with the screening. The Laboratory Medicine Committee feels this can be done by using existing schools of technology for training.

"The third phase is to be a lay-directed educational program necessitating close liaison with the Missouri Division of the American Cancer Society as to timing, what is disseminated, and where.

"*Action:* Following considerable discussion by various members of the two committees, on motion of Dr. Carroll, duly seconded, it was unanimously voted that the three-phase cytology plan, as proposed by the Laboratory Medicine Committee, be approved by this joint committee and presented to the Council of the Missouri State Medical Association for its approval."

Dr. Flynn said that Dr. Buhler would take the Kansas City district; Drs. Coller and Ferguson the southwest portion of the state; Dr. Flynn the central, and Dr. Hagebusch the St. Louis section. He pointed out that this would be a screening procedure, not diagnostic and that a charge would be made for the work.

Dr. Leeper demonstrated the equipment needed and the procedure. On motion of Dr. Tillman, seconded by Dr. Stuart, the report was accepted.

PUBLIC HEALTH

Dr. Hardwicke pointed out that the Division of Health was ready to do screening work and asked advice on support of screening, who should do the screening and who be the recipients and who would have control. He pointed out that Public Health nurses find people who have never been in a physician's care and that it is estimated that 40 per cent of recipients of welfare in Missouri are not getting adequate medical care. After discussion, on motion of Dr. Tillman, duly seconded, it was voted to appoint a special committee to work with the Division of Health on screening and health surveys. A brochure presented by Dr. Hardwicke was complimented. Dr. Hardwicke said that there was still Federally purchased poliomyelitis vaccine available; that the Division had not gone into the Asian Flu vaccine.

Dr. Hardwicke pointed out that in the last session of the legislature a bill providing compulsory isolation of tuberculosis patients had not passed and asked the support of the Association in the next session. This, together with study of mobile x-ray units, was referred to the Committee on Tuberculosis.

Dr. Hardwicke stated that in compliance with a recent law, the Department of Education had requested the names of handicapped children together with the diagnosis and the doctor's name. He said that the Attorney-General had approved this. No specific action was taken by the Council. Dr. Hardwicke said that the Hill-Burton survey was progressing and the report would be available within 60 days.

VENDOR PROGRAM

The Vendor program was discussed, including the action of the House of Delegates, the organizations and communities approving it, the comments of members showing disapproval of the action of the House of Delegates or confusion of its intent, and the possibility of it being introduced in the called session of the legislature in January. In compliance with the action of the Council in September that a poll of the entire membership be taken because of the possibility of it being brought up in the legislature prior to another meeting of the House of Delegates, suggested material to go to the membership was presented and discussed.

A kit to go to all members with a covering letter was approved on motion of Dr. Dowell, seconded by Dr. Stuart.

VOCATIONAL REHABILITATION

Mr. O'Brien reported that the committee appointed to meet with the Department of Education and a committee of osteopaths had not met as yet but that he and Mr. Adams of the Missouri Osteopathic Association had met with Mr. Wheeler to discuss the request of the Osteopathic Association that osteopaths be permitted to make initial examinations on persons eligible for vocational rehabilitation. After discussion, this was referred to the Committee on Physical Medicine and Rehabilitation on motion of Dr. Tillman, duly seconded.

SINGLE LICENSURE

It was stated that a possible meeting with representatives of MSMA Council and Missouri Osteopathic Association concerning the single licensure act had been discussed and that January 12 or 19 had been tentatively set. It was suggested that the Association committee have a meeting prior to this and December 15 was set tentatively.

HOSPITAL-MEDICAL STAFF RELATIONS

Dr. Allen stated that Blue Cross and Blue Shield had too often been the battleground on problems of the hospital and the physician and that the Joint Committee on Hospital-Physician Relations composed of an equal number of representatives of the Missouri Hospital Association and MSMA had drawn up "Recommended Guides for Hospital-Medical Staff Relations" which he presented. After discussion in which two changes were recommended, on motion of Dr. Sewell, seconded by Dr. Dowell, the Guides were adopted as follows:

RECOMMENDED GUIDES FOR HOSPITAL-MEDICAL STAFF RELATIONS

Introduction

The general purpose of hospitals and physicians is to aid each other in the delivery of the best possible medical care to patients. To attain such a purpose requires full cooperation among medical staffs, governing boards and administrative heads of hospitals. The Missouri State Medical Association and the Missouri Hospital Association agree that methods of procedure should be established for properly disposing of grievances and other problems which might arise between these organizations and/or their respective members. The following procedures have been approved by the Missouri State Medical Association on .... and by the Missouri Hospital Association on .... as constituting means of achieving these ends if local means prove inadequate.

Grievance Procedure

The following Grievance Procedures shall be available to any physician or hospital having a grievance pertaining to hospital professional relations:

The Joint Committee encourages the formation of committees on hospital-professional relations on a local or district basis. In districts where such committees have not been established the Joint Committee will consider grievances when invited so to do. When established, such local or district committee should attempt to resolve all grievances referred to them. After all efforts at the local or district level have failed the grievance should be considered and resolved by the Joint Committee.

1. Any member of the medical staff of a hospital who feels that he has a grievance against his hospital shall first attempt to obtain adjustment of the situation within the institution through the administrator, the medical staff, and the trustees. Failing in this, he shall be free to present his case before the appropriate committee mentioned below without prejudice to his position on the medical staff in the hospital.

2. The administrator of any hospital shall similarly be free to present any grievance against a staff member to the appropriate committee, mentioned below in subsection 4, without prejudice to his position as an administrator, provided he has failed to obtain adjustment of the situation within the institution through the medical staff and trustees.

3. The Missouri State Medical Association shall appoint a standing committee to act as a Board to hear any charge of exploitation or other grievance from a physician pertaining to hospital professional relations. The Committee on Hospital and Professional Relations may be considered such a committee. If the grievance is not resolved by this Board, it shall be referred to the Joint Hospital-Physicians Relations Committee of the Missouri State Medical Association and Missouri Hospital Association for a hearing and opinion.

4. The Missouri Hospital Association shall appoint a standing committee to serve as a Board to hear any charge of exploitation or other grievance from a hospital pertaining to professional relations of the medical

staff. Their Council on Professional Practice may be considered such a committee. If the grievance is not resolved by this Board, it shall be referred to the Joint Hospital-Physicians Relations Committee of the Missouri State Medical Association and Missouri Hospital Association for a hearing and opinion.

5. The findings and recommendations of this Joint Hospital-Physicians Relations Committee shall be submitted to both parties and reported to the governing boards of the Missouri State Medical Association and the Missouri Hospital Association.

6. Approval of these recommendations by the Missouri State Medical Association and the Missouri Hospital Association will mean that each organization will use its influence to secure their adoption and practice in good faith by all members of the Missouri State Medical Association and by all hospitals in the Association.

Manner of Remuneration of Physicians by Hospitals

The Missouri State Medical Association and the Missouri Hospital Association agree that the manner of remuneration of a physician by a hospital is an individual matter and shall be left to each hospital and physician to agree upon. Such agreement shall satisfy, however, the following conditions:

a. The financial arrangement, if any, between a hospital and a physician properly may be placed on any mutually satisfactory basis, but a physician shall not dispose of his professional attainments or services to any hospital, lay body, organization, group, or individual, by whatever name called, or how organized, under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill, or tend to cause deterioration of the quality of medical care.

b. The above principles shall apply in all cases, whatever the purpose of the financial arrangement may be, including the remuneration of a physician for teaching, research, charitable services, and the like.

c. The practice of Anesthesiology, Pathology, Physical Medicine, and Radiology are an integral part of the practice of Medicine in the same category as the practice of Surgery, Internal Medicine, or any other designated field of medicine. The staff appointments and reappointments of these specialists shall be governed by the same principles as the appointments and reappointments of other medical staff members.

d. The chief of a hospital department shall have an opportunity to obtain financial reports regarding his department.

Revocation of Hospital Medical Staff Appointments

Since the Joint Commission on Accreditation of Hospitals does not outline the procedure to be followed for revocation of staff appointments, the Committee recommends that the following procedure be approved:

Revocation of membership on the medical staff of a hospital shall be made officially by the governing body. In no case shall the governing body take such action without previous consideration by the staff, as outlined below, and in accordance with any applicable provisions of the by-laws of the individual hospital.

Written notice of the board action shall be sent to the staff member involved and staff or appropriate staff body.

Under certain conditions when desirable for the protection of the physician or the hospital, a staff member should be acquainted with the charges against him and offered the option of resigning.

Formal proceedings to revoke hospital staff membership may be initiated by the staff or by the governing body and shall be referred to the proper staff committee. This committee shall make its report to the staff or the appropriate staff body, which in turn shall send the committee report together with its recommendations to the governing body.

Should the staff member involved or the staff be unwilling to accept the decision of the governing board, request for a review must be made in writing to the administrator of the hospital within thirty days of receipt of written notice of the board action.

A committee with equal representation from the staff and governing board shall be appointed jointly by the chief of staff and chairman of the board of trustees, to review the case and send its recommendation to the governing board with a copy to the staff or appropriate staff body within sixty days.

If this committee is unable to make a majority recommendation or if any of the parties involved so desires, a request for an opinion at the state level may be made to the president of the Missouri State Medical Association and to the president of the Missouri Hospital Association.

Instruction courses ran concurrently.

Upon receipt of such request, the president of the Missouri State Medical Association shall appoint three members of the Society, none from the medical staff of the hospital under discussion, and the president of the Missouri Hospital Association, shall appoint one hospital administrator and two hospital trustees, none from the hospital under discussion, to serve on the committee to act as an appeal board.

The six appointed members of this committee shall meet and select a lay chairman, not a hospital trustee or administrator, but, one who is well known for his interest and activity in local and state civic affairs.

The report of this committee shall be sent to the governing board of the hospital, to the medical staff, and to the involved member or members of the staff, and to the presidents of the Missouri State Medical Association and the Missouri Hospital Association.

A copy of the report of the findings of this committee shall be made available to the Joint Commission on Accreditation of Hospitals at its request.

Reappointment of Hospital Medical Staff

Since the governing body delegates authority for the conduct of the medical functions of the hospital to the medical staff, a method is necessary for the medical staff to be accountable to the governing body for its conduct of the medical functions. The traditional practice of annual appointments was adopted as such a method. The procedure for reappointments, therefore, should follow in general the same procedure as that for new appointments. In hospitals where staff appointments are made for a period of one year, or for some other fixed period, the procedure for revoking privileges does not apply to the routine expiration of such appointments, but if a staff member who did not receive a reappointment or whose privileges were changed so desires, he may request a review according to the procedure outlined above under "Revocation of Staff Appointments."

APPENDIX

Hospital Medical Staff Appointments

The Joint Commission on Accreditation of Hospitals very clearly states the mechanism by which appointments to an accredited hospital staff must be made and where the final responsibility for the conduct of the hospital lies. In their publication *Standards for Hospital Accreditation,* dated April 9, 1953, the following three paragraphs are pertinent:

I. ADMINISTRATIVE

....

B. Governing Body

All phases of the conduct of the hospital are the legal and moral responsibility of the governing body. In the discharge of its duties, the governing body is responsible to the patient, the community, and the sponsoring organization. Since governing bodies are rarely qualified medically, responsibility for the medical functions of the hospital must be delegated to the medical staff.

II. MEDICAL STAFF

A. Organization

....

3. Staff Appointments

a. Procedure

Staff appointments are made officially by the governing body. Recommendations are customarily made by the active staff, and in no case shall a governing body make an appointment to the staff without first requesting such a recommendation.

....

6. Committees

The following committees are required:

....

b. Qualifications or Credentials Committee.

The qualifications or Credentials Committee shall review applications for appointment and reappointment to all categories of the staff, extend privileges in the hospital, and make appropriate recommendations to the staff in such cases.

FRANKLIN COUNTY REQUEST

It was reported that the committee appointed to study the request that Franklin County be changed from the 2nd to the 5th Councilor District had not met. Dr. Bull was asked to replace Dr. Bohrer on the committee.

GREENE COUNTY

Dr. Tillman announced that Greene County Medical Society planned a reception and cocktail party in honor of the President, Dr. Sewell, preceding the Annual Banquet at the Annual Session to which all members will be invited.

R. O. Muether, M.D., *Chairman*

Meeting of March 22, 23, 1958

The Council met at the Coronado Hotel, St. Louis, March 22, 23, 1958, with R. O. Muether, M.D., St. Louis, Chairman, presiding. Those present were:

Drs. Muether, Donald M. Dowell, Chillicothe; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; W. W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton, W. S. Sewall, Springfield; W. F. Francka, Hannibal; E. Royse Bohrer, Jefferson City; Joseph L. Fisher, St. Joseph; O. P. Hampton, University City; H. M. Hardwicke, Jefferson City; Messrs. W. H. Bartleson, Kansas City; Hollister Smith, St. Louis; Lemoine Skinner, Edward C. Schneider, Bill Logan, Ray McIntyre, Tom O'Brien, St. Louis. Dr. W. C. Allen, Glasgow, and Mr. John W. Noble, Kennett, attended on Sunday.

MINUTES

The minutes of the last meeting were approved as mailed to members of the Council.

TREASURER'S REPORT

The Treasurer's report was presented and on motion of Dr. Dowell, seconded by Dr. Francka, accepted.

HOLT COUNTY REQUEST

A petition of Holt County Medical Society to hyphenate with the Nodaway-Atchison-Gentry-Worth Medical Society was presented. It was pointed out that this did not entail a change in Councilor District and on motion of Dr. Dowell, seconded by Dr. Sewell, this was approved.

SOUTHERN MEDICAL ASSOCIATION

On motion of Dr. Francka, seconded by Dr. Dowell, it was voted to invite the Southern Medical Association to meet in St. Louis, October 31 to November 3, 1960.

ADVISORS TO WOMAN'S AUXILIARY

A letter from the Woman's Auxiliary requesting that Drs. Joseph L. Fisher, St. Joseph; Armand D. Fries, St. Louis, and Charles T. Shepherd, Clayton, be approved as advisors to the Woman's Auxiliary was read. On motion of Dr. Sewell, seconded by Dr. Bohrer, these were approved.

DUES OF NEW MEMBERS

It was pointed out that dues of new members were for a complete year regardless of the time the physician became a member, that the A.M.A. collected half of yearly dues from members joining after July 1. On motion of Dr. Dowell, seconded by Dr. Summers, it was voted to recommend to the House of Delegates that dues for new members, either active or junior, be in full for new members accepted prior to July 1; and that dues be one-half of annual rates for new members accepted after July 1.

ST. LOUIS MEDICAL SOCIETY DUES

It was pointed out that the St. Louis Medical Society wished the Association to collect state and A.M.A. dues direct instead of the county societies doing so. In discussion, it was brought out that one problem was the by-law allowing either place of practice or residence to determine county society membership. It was pointed out that the A.M.A. in 1947 deleted the item of residence and Kansas did in 1953. On motion of Dr. Tillman, duly seconded, it was agreed that the Council should stand on the ruling of the 1957 House of Delegates that the county society should collect local, state and A.M.A. dues, and that the St. Louis Medical Society could take this directly to the House again if it desired.

BY-LAWS

Attention was called to the variance of the St. Louis Medical Society and the Association By-laws in regard to Junior Members, the St. Louis Medical Society allowing Junior membership for three years after the physician enters practice and the Association By-laws basing it on the year of graduation.

FIELD SECRETARY'S REPORT

Mr. McIntyre presented a list of meetings throughout the state attended and addressed by Dr. Sewell. He discussed the preceptorship program and said that a new list of prospective preceptors would have to be worked out soon. He said that 10 of 33 senior students had been preceptees. He showed an illustrated feature from the St. Louis *Post-Dispatch* on the preceptor program.

He explained the change in the Sears, Roebuck Foundation plan in that they now furnish survey services to communities and assist a community to raise funds.

He called attention to the postgraduate committee of the University of Missouri School of Medicine offering to furnish programs; the Conference on Schools and Rural Health in Jackson, Mississippi; talks before the St. Louis County Nurses' Association by himself; and talks by Bill Logan to hospital associations groups on press relationships. He discussed the placement bureau work and said that school health workshops would be held again this summer.

DIVISION OF HEALTH

Dr. Hardwicke reported on the need in small hospitals and nursing homes for understanding by physicians of rehabilitation needs; need for advisory help from the medical profession in regard to some programs such as immunization, and morbidity reports; how to use public health nurses; what items should be included in annual reports by hospitals; the place of public health education in the community; the refusal by some physicians to sign birth certificates until their bills are paid. After discussion it was decided that the one instance in which the physician had been told the law and given advice on it that the Council could do nothing, but that with others some educational work should be done as a service by the Association. On motion of Dr. Tillman, seconded by Dr. Perry, it was voted that a letter be sent to all members pointing out the legal angles of birth and death certificates. It was suggested that the Division of Health cooperate with the Association in preparation of a pamphlet giving such information. At Dr. Hardwicke's request, on motion of Dr. Francka, duly seconded, it was voted that an appropriate committee be appointed to work with the Division of Health. It was suggested that this could be a standing committee.

MULTI-PHASE SCREENING

Dr. Stauffacher gave the following report of the special committee on Multi-phase Screening:

"Recommendation: The committee recommends by unanimous vote to the Council of the Missouri State Medical Association:

"In view of the precedent of the Missouri State Medical Association in accepting single screening procedures, the committee believes there is merit in a county medical society sponsoring a pilot multi-phase screening project.

"The tests to be done and the Population segment to be surveyed should be determined by the sponsoring county medical society.

"Background: This committee appointed by the Chairman of the Council, at the direction of the Council, was charged with the responsibility of studying, in conjunction with the Missouri Division of Health, the advisability of a pilot multi-phase screening project being established in some local area of the state, and to report its deliberation to the Council.

"The idea for such a screening project was presented to the Council at its November 23, 24, 1957 meeting by H. M. Hardwicke, M.D., Acting Director, Missouri Division of Health.

"Discussion: Dr. Hardwicke presented the following purposes of a pilot screening project:

"1. To discover the unmet needs, in a particular locality, for medical care with the hope of focusing more attention and efforts upon the prevention of chronic diseases.

"2. To help achieve a kind of health education for which the Division of Health by law is responsible.

"3. To serve as a mechanism through which the citizens of a community learn how important a part their local doctors can play in their lives in the prevention and cure of disease and in the promotion of good health.

"To strengthen these purposes he further pointed out:

"1. The published report of the Institute for Research in the Social Sciences, University of Missouri, and the Missouri Health Council, entitled 'Medical Services Received by the Medically Indigent Population of Non-Metropolitan Missouri: A Survey of 27 Counties, 1953-54.'

"2. Health studies made by Community Studies, Inc., of Kansas City, Missouri.

"3. The recent study in the St. Louis area, 'Public

Health and Hospitals in the St. Louis Area,' carried out by the American Public Health Association.

"4. Reports of Medical Care and Health Studies of Rural Missouri made by the Rural Sociology Department of the University of Missouri.

"5. Reports of Public Health Nurses and County Welfare Departments from over the state all indicate that there are sufficient needs, in line with the purposes enumerated, to jusitfy a pilot screening project to further pin-point medical care and health programs.

"In setting up a pilot screening project, Dr. Hardwicke explained that a County should be selected which had a health department with sufficient personnel and facilities to run the tests, hospital facilities, and sufficient doctors in the county to handle referrals. The battery of tests to be used would be decided upon by the local medical society. Likewise, the segment of the county population to be tested would be determined by the county medical society. This segment might include all residents of the county, or just those on the old-age assistance rolls, or anyone in the county on welfare, or either of the latter plus medically indigents certified by the local doctors.

"The health department would make arrangements for the people to get the tests and then send the histories and test results to the family doctors of the patients, or to a doctor selected by each patient who indicated no family doctor. No diagnosing or treating would be done by the health department throughout this screening project. In discussing this matter Dr. Hardwicke reviewed similar screening projects which have been developed in other states. The one in Baltimore was particularly emphasized.

"Observations: The committee members agree that for a number of years single phase screening tests have been carried out with the tacit approval of the MSMA. As an example was cited the mobile X-ray survey.

"It was also recognized that any tests that might be used in Multiphasic screening by tradition have always been considered to be a part of the private practice of medicine and that for such a program to be operated by any Governmental agency constitutes a further inroad in the field which constitutes the private practice of medicine.

"However, during the discussion it was brought out that if the Medical Profession fails to seize the leadership in screening test programs, other groups may take the lead. It has been a tradition of the profession to assume full responsibility for the health of its people. Such a responsibility should not be abandoned. This recommendation places the full responsibility for the tests in the hands of the County Medical Society. The County Medical Society is free to call in what help it needs. It was assumed, of course, that the help would include the resources of the Division of Health. Dr. Hardwicke agreed that the Division of Health would remain in the background as far as publicity was concerned.

"It also seemed to the committee that this was an opportunity for the medical profession to get out in front with a sound educational program."

Dr. Hardwicke said that Jefferson County Medical Society had been contacted and the program would be developed with the approval of that medical society. On motion of Dr. Sewell, seconded by Dr. Francka, it was voted to accept the report and if the multi-phase screening is done in Jefferson County, a report would be submitted to the Council prior to beginning similar work in any other county.

JOINT LICENSURE

Dr. Muether presented a report of a meeting of the joint committee of the Association and the Osteopathic Association on joint licensure in Jefferson City on January 26 on which the Supplemental Report of the Council is based.

On motion of Dr. Tillman, seconded by Dr. Francka, the report on the joint meeting was approved.

On motion of Dr. Creech, seconded by Dr. Dowell, the supplemental report was approved. (See Delegates' "Handbook" for supplemental reports.) It was suggested that if the House turns down this report, a directive should be sought.

SUPPLEMENTAL REPORTS OF THE COUNCIL

Dr. Muether presented the balance of the suggested supplemental reports of the Council to the House of Delegates that were ready. They covered: Introduction, Forand Bill, Vendor Program, Medicare, Missouri Medical Service, Assessment and Dues.

Each report, upon motion duly seconded, was approved with changes made in some instances.

MISSOURI MEDICAL SERVICE

Dr. Muether reported that the St. Louis Medical Society was of the opinion that MSMA should not be the sponsoring organization for Missouri Medical Service since it was not a state-wide organization and some persons not vitally concerned had some control.

DR. DUVAL

It was announced that Dr. Addison Duval had been named head of the Division of Mental Diseases and had expressed the hope that he would have the cooperation of the Association. It was suggested that he be asked to speak briefly at the Annual Banquet. On motion of Dr. Dowell, seconded by Dr. Francka, this was accepted.

SPECIAL COMMITTEE

It was announced that the special committee to study the petitions of Franklin-Gasconade-Warren County Medical Society to be placed in the Fifth Councilor District, and Barton-Dade County Medical Society to move to the Sixth District, would meet at 9:00 a.m. Sunday morning.

KITS FOR DELEGATES

It was approved by the Council that a kit of materials dealing with various matters that are likely or are known will come before the House be furnished Delegates and Alternates prior to the session. This includes a handbook of the various supplemental reports of the Council.

SPECIAL COMMITTEE

Dr. Summers reported on the meeting of the special committee with members from the Franklin-Gasconade-Warren County Medical Society to discuss the request of the Society to be moved from the Fourth to the Fifth District. The recommendation of the committee was that the Council recommend to the House of Delegates that the petition had merit but that an over-all study of the state should be made to determine if other allocations should be made, the President to appoint a committee of one member from each Councilor District. On motion of Dr. Tillman, seconded by Dr. Stuart, this recommendation was accepted. The recommendation is contained in a supplemental report in the Delegates' Handbook.

CIVIL DEFENSE

Dr. Allen presented the report of the Committee on Civil Defense. The full report is printed on page 31 of the *Reports of Officers and Committees.*

Dr. Bohrer discussed his work as Civil Defense Medical Consultant to the Division of Health.

After discussion it was clarified that the Committee wished approval in principle of the new plan, the Missouri Division of Health six-district set-up for Civil Defense work, and an appropriation of $150.00 for a display of a mobile hospital to which all physicians interested would be invited. On motion of Dr. Tillman, seconded by Dr. Stuart, this was approved.

The entire problem was discussed further by Dr. Hardwicke and Dr. Hampton and the Committee was commended for its work.

HEALTH INSURANCE FORMS

Mr. Logan presented a study of health insurance forms as to the possibility of designing one form to be used for all commercial policies.

On motion of Dr. Creech, seconded by Dr. Dowell, the report was accepted to become a part of the Council's Supplemental Report to the House of Delegates.

PROBLEMS OF AGING

It was announced that Dr. Stauffacher and Dr. Stanley Petersen had been appointed to serve on an advisory committee to Dr. Hardwicke on "Problems of the Aging."

A.M.A. DELEGATES COMMITTEE

The following committee to confer with Delegates to the A.M.A. was named: Drs. Sewell, Francka, Stuart, Bull and Muether.

R. O. Muether, M.D., *Chairman*

R. O. Muether, M.D., St. Louis: The supplemental report of the Council is included in the Handbook which you have received. I did not read the minutes of the Council meeting of March 22 and 23, 1958, because most of it is included in the delegate's handbook.

Before presenting the individual items that make up this supplemental report of the Council to the House of Delegates—items that will require consideration and formal action by the House—I should like briefly to comment on the growing scope of the MSMA program and on the special efforts made during the past year by the officers, Council and staff of the Association to bring to every member physician full and timely information on many important issues and problems that confront the association and the profession.

The year saw a major expansion of our information program. First, as you know, our President, Dr. Sewell undertook the most extensive series of visits and talks to constituent medical societies. He went into every part of the state to give to doctors a full and first-hand account of the organization and function of MSMA and a detailed report on major matters of policy.

In Missouri Medicine, by the wide use of special mailings on subjects of particular importance, by releases to county society journals and, finally, by an extensive campaign to stimulate interest in and attendance at this 100th Annual Session, we have sought to do everything possible to make the individual member doctor fully aware of MSMA activities and their importance to him in the practice of his profession.

All of us must recognize, the Council feels, that the complexity of our problems is growing from year to year. With the executive and legislative branches of local, state and Federal Governments and with increasingly numerous semi-official and private groups of citizens concerned with matters of health—your Association finds itself involved in a steadily expanding series of complex relationships—all of the greatest importance to medicine. The work load of MSMA is growing.

Dr. Wilkins, president of the American Heart Association, was a guest speaker.

Through the year it is the responsibility of the Council to direct every phase of this increasing Association program. On behalf of the Council, I wish now to acknowledge the help we have had from committees of MSMA, and particularly from committee chairmen; I want to thank all the individual doctors who took the time to study the information materials sent them during the year and who expressed their views to help guide us in our work; I want particularly to thank the staff—increased in manpower during the year—for its untiring and loyal effort on behalf of the Association and the profession. Under our devoted Executive Secretary, Tom O'Brien, the staff has most effectively carried out the directives of the Council in the conduct of our programs and activities.

I cannot forego an ad lib of my own because I feel deeply about it. During the last year, there has been, in my opinion, a slanderous attack on the Council and employees of the Association. It has been said in effect that the Council has been the dupe of the Executive Secretary and other employees of the Association. I feel it is my duty and responsibility to deny this very vehemently. The employees have served the members of the Council and the entire membership of the Association with unswerving loyalty and have ever been at the command of the Council and committees. They have served long hours and many weekends unselfishly. I feel that the thoughtless and unjustified attack on them is not only an insult to the Council which has striven with courage and intelligence to carry forward the high standards and lofty principles of organized medicine, but to the delegates and the various Councilor Districts who elected them to the positions they hold. I wish again to express my personal gratitude to these loyal and untiring people.

It is not unexpected, or surprising, that there should have been during the year differences of opinion within the profession as to the direction of our policies and the elements of our program. We on the Council have believed it our very first responsibility to leave nothing undone that would contribute to the fullest understanding of the problems before us and the fullest expression of membership opinion on each of them.

Our job has been to set the stage for this House of Delegates to make considered and informed decisions as to every significant element of our policy. As we have worked at this job, the staff has worked under us—and at our direction. We of the Council hope that the job has been adequately done and that every doctor—and particularly every delegate—at this meeting has the background information necessary to a full understanding of the issues. In the delegates' folders we have tried to summarize this background in readily usable form. For the deliberations of the reference committees we have tried to provide even fuller information and have invited the attendance of informed experts in various fields for consultation. Having tried to do everything possible to make the background facts fully available to the House, the Council now considers it is the delegates' job to make the decisions.

In the following sections of this report the Council will endeavor to set out the choices. The choices themselves are yours to make.

MISSOURI MEDICAL SERVICE

As reported to the Council throughout this year, a great deal of activity by the St. Louis Blue Shield Plan has been directed toward the development of new programs for the public.

As a first actual step in this development, on February 1, 1958, six new benefits were introduced for present St. Louis Blue Shield members, with no increase in dues. These benefits have the effect of moving a significant portion of the protection into the physician's office and of substantially increasing the availability of medical benefits.

The second step in the development plan is to come in the near future with the introduction of a new basic indemnity program, called "Selective." Under this program, which includes a number of special features, benefits for almost every type of service will be available for services in the physician's office as well as in the hospital, and protection for medical care will again be increased. The program is to be offered on a flexible basis, to allow a group to choose the benefits it wants and, correspondingly, the dues it wants to pay.

The third step reported by St. Louis Blue Shield is a program now under development for catastrophic (major medical) coverage. This is the extended benefits or major medical sort of protection (with co-insurance and deductible features) to carry coverage beyond the degree of care ordinarily necessary into protection for the extraordinarily serious illness or accident.

Besides these broad new programs, steps were taken to liberalize enrollment regulations for Farm Bureau groups, making it possible for more of the people in rural areas to obtain protection. Liberalizations are also being planned for people over age 60 so that they will be able to take out Blue Shield memberships on a non-group basis. A program to provide protection that would be paid up at age 65 is also being investigated.

The chief objective of Blue Shield is to make it possible, and attractive, for people voluntarily to provide adequate protection for themselves. The Council makes this brief information report to the House of Delegates because it believes that Missouri Medical Service—The Blue Shield plan sponsored by MSMA—as well, of course, as the sister plan sponsored by the Jackson County Society—are soundly and intelligently working toward the objective of providing ever more completely the kind of voluntary, prepaid protection the public needs and wants.

ASSESSMENT AND DUES

The Council wishes to bring to the attention of the House an omission in the official minutes of the 1956 Annual Session regarding the action of the House in voting the assessment of $10 per member which was in effect during 1957. The minutes as published in MISSOURI MEDICINE show that the Budget Committee and the Council recommended a $10 increase *in dues* and that this was approved by unanimous vote of the House. After this action, however, it was recognized by the Council that such a dues increase could not be voted for 1957 because a change in dues would require a change in the By-laws. This could not be done because a change in By-laws must lie on the table for a day and there was not sufficient time left to do this.

Accordingly, at the Wednesday, April 11, 1956, session of the house, a motion was made by Dr. Victor Scherman, a delegate from St. Louis, that the rules be suspended to permit the introduction of a motion to levy a $10 assessment for 1957 and that the By-laws be changed at the next Annual Session to fix the dues at $35 per year beginning in 1958. The House gave unanimous consent to the suspension of the rules, and it was duly moved, seconded and adopted that there be a $10 assessment for 1957 and that the By-laws be amended at the next Annual Session to set the dues at $35 commencing with the year 1958.

This Wednesday, April 11, 1956, action of the House was by inadvertence omitted from the published minutes of the meeting. It is, however, fully reported on page 81 of the official proceedings of the meeting prepared by the Gore Reporting Company.

Therefore, Mr. Speaker, in order that the published minutes of the 1956 annual session may show the action of the House on this matter, I request that a motion be made so that the published minutes be corrected to comply with the official record of the proceedings.

KENNETH GLOVER, M.D., Mount Vernon: Mr. Speaker, I move that the minutes, according to those that are absent, be rescinded, and that the 1956 House of Delegates' minutes, as printed in MISSOURI MEDICINE, be corrected to show the following:

At the April 11, 1956, session of the House of Delegates, the House gave unanimous consent to the suspension of the rules, after which it was duly moved, seconded and adopted that there be a $10 assessment for 1957 and that the By-laws be amended at the next Annual Session to set the dues at $35 commencing with the year 1958.

Upon second, a standing vote was taken resulting in 76 for and 4 against.

DR. MUETHER: Next Mr. Speaker, one further action is required in connection with the 1957 assessment in order to comply with the following provisions of the By-laws of the Association, Chapter VIII, Section 3, which reads, in part, as follows: "Funds obtained from special assessments shall be allocated only for the purposes for which such assessment is levied . . . unexpended balances from such assessments must be reported to the House of Delegates for re-allocation."

As was pointed out to the House before the 1957 assessment was voted, it was believed important to have the funds available for an expansion of the Association's activities in the fields of public and professional relations. There was a serious question as to the problems of the 1957 Legislature might bring—particularly in the area of licensure, on which there there was reason to believe the osteopathic group might take an independent initiative.

As the year progressed, however, no critical problem developed on this front, and it seemed prudent to the Council not to extend our public relations or other Association programs during 1957. Only a small part of the additional money was spent. The Council now brings the matter before the House in order that the funds may be re-allocated in compliance with the By-laws.

It is the Council's recommendation that the unexpended funds in the amount of $33,538.27 be transferred to the reserve account of the Association. This will bring our reserve to a total of *$129,147.14* which is coming close to the goal we have long set for ourselves —namely to have a reserve equal to approximately one year's operating expense.

Mr. Speaker, I request that a motion be made so that the unexpended funds resulting from the 1957 assessment be transferred to the reserve account of the Association.

KENNETH GLOVER, M.D., Mount Vernon: Mr. Speaker, I move that the unexpended funds in the amount of $33,538.27 resulting from the 1957 assessment be transferred to the reserve account of the Association.

Upon second, the motion was passed on vote.

FORAND BILL

DR. MUETHER: Since the last meeting of the House of Delegates, there has developed on the national scene a powerful move toward the socialization of medical and hospital care in this country. This is a proposal to the Congress, in House Resolution 9467 introduced by Congressman Forand of Rhode Island, for the provision of Federal government-paid hospitalization and surgery to all persons—regardless of their economic and employment status—who are eligible for the old age and survivors insurance benefits of the Social Security Act. The legislation would impose alarming increases in payroll taxes paid by employee and employer in order to pay for the program.

The officers, Council and staff of the Missouri State Medical Association, during the intervening months, have alerted the medical profession in this state to the dangers of the Forand Bill.

Every member of the Association has been provided with a detailed analysis of the legislation and asked to write his Congressman urging defeat of the measure. Through the President's Page, the editorial page and the news columns of MISSOURI MEDICINE, there has been a continuing program of information about the proposal. Every county medical society has been asked to appoint a special committee to carry on the fight at the grassroots. Officials of every county medical society have been asked to determine the position of hospital boards of trustees in their area concerning the Forand Bill and, in any instance in which there appears to be an inclination on the part of any trustees to favor the measure, to explain the reasons for the medical profession's opposition.

To implement and strengthen the medical profession's fight against the Forand Bill, the Council proposes to the House the adoption of the following resolution:

WHEREAS, House Resolution 9467, introduced by Congressman Forand of Rhode Island, would, through alarming increases in Federal payroll taxes, provide Federal government-paid hospitalization and surgery to all persons, regardless of their economic need, who are eligible for the old age and survivors insurance benefits of the Social Security Act; and;

WHEREAS, Voluntary health insurance plans have made tremendous strides toward providing the health care protection so essential for the elder men and women of this country; and

WHERFAS, Enactment of House Resolution 9467 would inevitably lead to further legislation resulting in the Federal government's taking over provision of hospital and medical care of the entire population, with consequent deterioration in the present high quality of medical and hospital care; now therefore, be it

Resolved, That the House of Delegates of the Missouri State Medical Association authorize the officers, Council and staff of the Association to take all continuing appropriate actions necessary to aid in opposition to the Forand Bill and all similar measures in Congress.

The Speaker referred the portion of the supplemental report of the Council and that portion of the minutes of the Council meeting of March 22 and 23 which dealt with the Forand Bill to the Reference Committee on Resolutions.

MEDICARE

In December 1956, the Missouri State Medical Association entered into a contract with the Department of Defense for the purpose of providing care for dependents of active duty personnel of the uniformed services of the United States under the Medicare program. MSMA is the contracting agency for matters of policy and control. The two Blue Shield plans of the state serve as fiscal administrators under the program.

MSMA negotiated the contract with the Department of Defense in compliance with a resolution adopted unanimously by the 1956 House of Delegates and after a membership poll in which 87 per cent of responding physicians advocated the Association's entering into a Medicare contract.

A summary statement of Medicare activity in Missouri to date and data on the state of the program nationally are included in delegates' folders. In addition, arrangements have been made to bring an authoritative representative of the Department of Defense to this session to discuss the program.

At last year's meeting of the House, the officers, Council and staff of the Association were asked to explore the possibility of carrying forward the Medicare program in Missouri without fee-schedule restrictions.

In about 40 states, including Hawaii, Alaska and the District of Columbia in this total, the Medicare program operates as it does in Missouri, with a fee schedule negotiated with the government and published to the physicians.

In six states, Illinois, Iowa, Florida, Idaho, Wisconsin and North Dakota, the fee schedule has been negotiated with the government but not published. Physicians are asked to bill their usual charges, which are paid if they are at or below the fee schedule amounts. If the billed charge is more than the fee schedule amount, payment is limited to the scheduled fee.

In Indiana, also, the fee schedule reportedly has been negotiated with the Government but is not published. Physicians apparently are asked to bill their usual charges, which are paid without reference to the schedule. Thus, some physicians evidently are paid more than the fee schedule amount, some are paid less, with the idea that total billings will average out at the fee schedule rate.

In Ohio, the state medical association felt it could not enter into a contract with the government for legal reasons. The Association, however, suggested a fee schedule which was accepted by the government, and physicians are paid according to this schedule through Mutual of Omaha.

In Rhode Island, where no contract could be agreed upon between the state medical association and the government, the fee schedule was set up by the government alone, and physicians are paid according to that schedule through Mutual of Omaha.

Thus, in every case there is a fee schedule, arrived at in one way or another, and it appears that the government is holding to that method. Delegates are urged to study for themselves the choices available by reviewing the materials in their folders and by taking part in the discussion of the reference committee.

The question before the House of Delegates—in the light of all the information here available—is whether or not the Association should negotiate a new Medicare contract with the Department of Defense to continue the program beyond the expiration of our present contract September 30, 1958.

It appears to the Council that the alternatives are these: One, the Association may renegotiate a contract on the basis of a revised fee schedule, in which case we shall have a voice in defining the schedule. Or, two, we may abandon the contract idea and leave it, in effect, to the unilateral decision of the Department of Defense to determine the ceilings it will place on charges for specific services of physicians under the program.

The decision entails considerations of principle, economics and public relations. The Council believes the decision should be made by this House of Delegates.

Mr. Speaker, in order that this matter may be properly placed on the agenda of the House, I should like to invite a resolution from the floor regarding the policy we shall follow from now on with regard to the Medicare program of the Department of Defense.

The summary of Medicare cases and payments to Missouri doctors from the start of the program December, 1956, through December 31, 1957, follows:

	No. of Cases	*Amounts Paid*
St. Louis Blue Shield Area	4,061	$314,708.00
Kansas City Blue Shield Area	3,314	$229,089.00
Totals	7,375	$543,797.00

Of the 7,375 total cases, 142 have been referred to the MSMA Medicare Committee for recommendations in instances in which physicians have provided services not listed in the Medicare manual, in which more than one physician has provided care, and in which the physician felt the fee in the particular case should be greater than the listed maximum. In all but three instances, the recommendations of our committee have been accepted by the government. The three rejected, in spite of our committee's recommendation, were held by the Department of Defense to involve surgery for elective or cosmetic purposes and therefore not allowable under the terms of the statute.

The Speaker referred the portion of the supplemental report of the Council and the portion of the report of the March 22 and 23 meeting, dealing with Medicare, to the Reference Committee on Resolutions.

VENDOR PROGRAM

DR. MUETHER: The Missouri State Division of Welfare sponsored enabling legislation for a vendor medical care program in the 1957 Missouri General Assembly. Purpose of the legislation was to authorize the state to obtain dollar-for-dollar matching funds from the Federal government to launch a program for the medical care of certain classes of people who are on the public assistance rolls—people who have been certified by the state as indigent.

No specific details for a program were spelled out in this proposed state legislation; presumably these were to be filled in by regulations.

The Federal law establishing the program offers those states wishing to obtain matching funds a number of optional approaches. Medical care as defined by the law is not confined to the services of physicians. It covers also hospitals, nursing homes, nurses, dentists and drugs.

It is, therefore, up to each state undertaking a vendor program to decide whether it wants to pay for one, two, three, four, five or all six of those classes of medical care and services defined in the law.

Here again, each participating state has a further choice of courses it can take in carrying forward its program. Eligible for vendor medical care by Federal definition are four classes of persons who—by reason of their indigency—have been certified to receive public assistance. They are persons who are past 65 years of age, or those who are blind, or those who are totally and permanently disabled, or those who are dependent children or the guardians of dependent children.

It is up to each participating state to determine whether one, two, three or all four classes of indigent people will be covered.

A number of states already have vendor programs operating. The American Medical Association, on the basis of estimates from the Federal Bureau of Public Assistance, has said the total is expected to reach about 40.

Under the program, payments for medical care and services are made direct to the persons who provide them—vendors as they are called in the Federal act. Those payments are in addition to subsistence payments already being made to the welfare recipients themselves. Here in Missouri, the present subsistence payments the State Welfare Division is now making to welfare recipients go up to a maximum of $60 per month per person in the case of old age assistance—and this includes any provision for the recipient's own payment of his medical care costs.

It has been estimated that, in the case of Missouri, if the Legislature wanted to take full advantage of available Federal funds, it would require an appropriation of about $7,000,000 in state funds. So, with a like amount of Federal matching funds, this would make a total of $14,000,000 annually.

Just as it is up to every state whether it wants to participate *at all* in this vendor medical care program for indigents, it is entirely a matter for each state's decision as to the extent to which it will participate.

Dr. Hammond spoke during a Clinical Pathologic Conference.

The Missouri State Medical Association's Committee on Medical Economics made an extensive study of the vendor proposal and submitted its recommendations to the Council of the state medical association. The Council, after careful consideration, submitted its recommended course of action to the House of Delegates at the 1957 Annual Session in Kansas City. Here is the resolution the Council favored:

"Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"There is, however, an apparent trend toward provision of public funds for the health care of indigent people, including payments to physicians as vendors of medical services. This trend has been embodied in social security legislation providing Federal funds, to be matched by the states, to be paid for indigent health service. State legislation will be called for to implement the Federal law.

"It is the strong feeling of the committee that the proposed state legislation, in view of its importance to the public welfare and the individual patients who may receive care, should include provision for the appointment of a medical advisory committee to consult with and advise the State Department of Welfare on the matters affecting all phases of medical care."

This resolution was one that might be described as recommending watchful neutrality toward a program the details of which had not taken final form. It advocated the creation of a medical advisory committee to aid in the development of medical care aspects of any program that might be undertaken. It did not put the medical profession in the position of saying that it opposed direct payments of vendor funds to hospitals, nursing homes, nurses, dentists and druggists for the benefit of Missouri's indigent people. And it left for future determination whether Missouri doctors wished to continue their tradition of free service to the needy or to be paid for such service.

The resolution was referred to a reference committee of the House of Delegates and that committee recommended its passage.

When the resolution was brought out on the floor of the House of Delegates, an amended resolution was offered from the floor. It stated: "Traditionally the medical profession has provided care for indigent patients without charge. The medical doctors of Missouri are ready, as always, to continue this tradition of service to patients in need without regard to payment.

"Even though there is an obvious trend toward provision of Federal funds for the health care of indigent people, including payments to physicians as vendors of medical services, it is imperative that the proposed state legislation to implement Public Law 880 to provide matching funds should be defeated because it will establish a potentially dangerous framework for Federal medicine with the consequent deterioration of medical care to the public which is inevitable in any bureaucratically controlled program."

This amended resolution was adopted by the House of Delegates after brief consideration and without referring the issue back to the reference committee.

It placed the doctors of Missouri on record as saying that they were opposed to the legislature's authorizing all or any part of a vendor medical care program for the state's indigent people. It took the position that the medical profession did not want to be paid any Federal-state funds for caring for the needy—that the doctors would continue to provide such service without charge. It further took the much more sweeping position that the medical profession was opposed to the State of Missouri's providing any matching Federal-state funds to pay for vendor medical services to the indigent—not only the services of doctors, but also those of hospitals, nursing homes, nurses, dentists and druggists.

The vendor legislation was pending in the Missouri Legislature at the time the resolution was adopted by the House of Delegates of the Missouri State Medical Association. In view of the fact that the Governor had stressed to the Legislature that legislation requiring large additional appropriations should be deferred to a subsequent session until an over-all study of the state's finances could be made, it was confidently expected that the vendor measure would not pass in that session.

The Council was of the opinion that making a public announcement then of the House of Delegates' resolution in sweeping opposition to a measure that was expected to die in committee anyway might only have the effect of focusing attention on it and precipitating further action, particularly by other health care organizations interested in the law. No announcement was made. The legislation died in committee.

Subsequently, the Council started getting inquiries from some members indicating that the full implications of the sweeping resolution were not completely understood at the time of its passage.

Additionally, the American Public Health Association, in a report on "Public Health and Hospitals in the City of St. Louis" recommended that Missouri undertake a full-scale vendor medical care program because, the report said, the state is lagging behind other states in this part of the country in providing for the medical needs of public assistance recipients. The Mayor of St. Louis has called for such action.

Some nursing home operators have advocated the use of vendor funds to help pay for nursing home care of indigent old people. They say the nursing homes, which are charging higher rates to finance the stricter requirements of the new state nursing home law, would thus be able to take care of more old age public assistance recipients. Representatives of hospital and nurses organizations made known last year they favor a vendor program.

As it appears certain that vendor legislation will be introduced in the next Legislative session with strong support and since there were indications that there was not complete understanding of the full import of the resolution adopted by the MSMA House of Delegates, the Council in December, 1957, sent to all members of the Association a résumé of the issue and a questionnaire to determine the thinking of the doctors on the issue.

Two alternative courses of action were outlined. One, which was designated Policy No. 1 would put the medical profession of Missouri against any vendor program in the state, whether or not it provided for payments to any or all of the following: Doctors, hospitals, nursing homes, nurses, dentists or druggists. The other, designated as Policy No. 2, would put the medical profession neither for nor against enactment of vendor legislation as such. It would, however, call for the appointment of a medical advisory committee to consult with and advise the Missouri State Division of Welfare on the matters affecting all phases of medical care if vendor legislation were passed. In those cases in which the doctor favored neither one of the policies, he was asked to check a box labeled "other" and to write out what other policy he believed the Association should adopt. Here are the results:

Of the approximately 3800 poll cards mailed out to members of the Association, 1083 have been returned. A total of 742 doctors were for Policy No. 2, and 241 were for Policy No. 1; the vote was more than three-to-one for Policy No. 2. A total of 100 doctors checked "other" on the poll cards.

In St. Louis and St. Louis County, 279 were for No. 2 and 104 for No. 1; this is a ratio of 2.7-to-one for No. 2. Thirty-seven checked "other."

In Kansas City and Jackson County, there were 146 votes for No. 2 and 58 for No. 1—a ratio of 2.5-to-one for No. 2. There were 16 votes for "other."

For all the rest of the state, the results were 317 for No. 2 and 79 for No. 1; No. 2 carried over No. 1 by four-to-one. There were 47 votes for "other."

A number of the physicians who marked "other" on the cards did not, however, state what alternative course of action they would like to see the state association follow. The thinking of those who did write out an indication of a suggested policy can be roughly divided up into these major categories: In favor of a vendor program. In favor of a vendor program for others, but not for physicians. In favor of a vendor plan like in Colorado, where the Federal-state funds are used to pay for Blue Cross-Blue Shield coverage. In favor of physicians participating in and getting paid from vendor program. In favor of locally-financed program.

The Council believes it has now fulfilled its responsibility to the House of Delegates and the membership of the Association by providing full and detailed information on this important subject. It is now the responsibility of the House to determine the policy the Association should follow as regards a proposed vendor program.

To expedite the deliberations of the House, the Council suggests that the following four courses of action are the principal ones open to us. One: We may, as proposed in what was designated Policy No. 1 in last December's poll of the Association membership, condemn the vendor idea completely and in principle and oppose the provision of public funds in Missouri for payment to any and all providers of health care for the indigent as defined in the Federal vendor legislation. Two: We may take the position as an association that funds ought not to be provided for the payment of physicians, but that we do not oppose provision of funds that may be needed for other classes of vendors under the program. Three: We may recommend that physicians be included among the vendors who are to receive payments. Four: We may, as proposed in what was designated as Policy No. 2 in the poll last year, take a neutral position, with a recommendation that proposed state legislation should include provision for the appointment of a medical advisory committee to consult with and advise the State Division of Welfare on matters affecting all phases of medical care.

Mr. Speaker, at this point, may I invite you to request a motion from the floor so that this matter may be brought before the House.

O. B. BARGER, M.D., Harrisonville: Mr. Speaker, I wish to present the following resolution:

WHEREAS, Legislation will probably be introduced in the Missouri General Assembly to implement federal law by providing state matching funds for payments to persons and institutions providing various kinds of health care to certain classes of indigent citizens, and

WHEREAS, The members of the Association have had a full opportunity to consider the implications the possible policies MSMA might adopt in regard to such vendor legislation and have apparently expressed the majority view that it would not be in the best interest of the profession or the public to oppose in blanket fashion such legislation for all classes of vendors, including hospitals, nursing homes, nurses, dentists and druggists, and

WHEREAS, Time and opportunity remain for the Association to work to keep doctors from being included in such a program if this is the wish of the profession, therefore be it

Resolved, That the Association adopt a policy of watchful neutrality toward the legislation as a whole, and be it further

Resolved, That a directive be sought from the membership under which MSMA might take steps to prevent the inclusion of physicians in any vendor program adopted, and be it further

Resolved, That any vendor legislation should make provision for the appointment of a medical advisory committee to consult with and advise the Missouri Division of Welfare on all matters affecting any phase of medical care connected with the program.

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

DEAN SAUER, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

WHEREAS, This House of Delegates has already gone on record as being unalterably opposed to the proposed vendor program, now therefore be it

Resolved, 1. That we reject the principle of federal tax monies for local medical care,

2. That we wish to continue to be directly responsible to the people of Missouri in furnishing free medical services to the needy, rather than be subjected to the directions and regulations of a federal program,

3. And since the true status of the health needs of the indigent through the state is not known and must be determined before any program can be instituted, that a survey be made by the University of Missouri to determine what needs, if any, actually do exist,

4. That we believe it to be the proper concern and responsibility of the people of Missouri to support necessary health services for the indigent of our state, without federal aid, in the degree that other sources may be unavailable to them,

5. That we, Doctors of Medicine, serving the people of Missouri, reaffirm our desire to furnish medical care to the indigent free of charge, and

6. That we will assist in making proper arrangements for the care of these patients through local resources, and

7. That this House of Delegates hereby reaffirm its unalterable opposition to the proposed vendor program.

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

HECTOR W. BENOIT, JR., M.D., Kansas City: Mr. Speaker, I move the adoption of the following resolution:

WHEREAS, Governor James T. Blair has recommended a medical care program for the recipients of public assistance in Missouri: and

WHEREAS, The American Public Health Association, in a report last year entitled *Public Health and Hospitals in the St. Louis Area*, asserted "The State of Missouri, in comparison with a number of other states in this part of the country, has lagged behind seriously in providing for the medical needs of public assistance recipients," and recommended among other things that state legislation be sought to make the necessary appropriations to take advantage of Federal matching funds for a full-scale vendor medical care program for public assistance recipients who are past 65 years of age, or totally and permanently disabled, or blind, or dependent children or the guardians of dependent children; and

WHEREAS, We are informed that 41 states have basic vendor medical care legislation and 34 of those states have some form of vendor medical care program in actual operation and

WHEREAS, The major problem of the doctor-indigent patient relationship is the inability to meet hospital nursing and drug expenses and not the physician's fee and

WHEREAS, It is desirable to take a positive stand in favor of a basic indigent medical care program as opposed to contemplated all inclusive medical care for the aged (Forand Bill, House Resolution 9467) and

WHEREAS, Exclusion of physician's fees for service would eliminate any implications relative to socialized medicine, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association approve the principle of the use of vendor medical care funds in Missouri to pay for the services of hospitals, nursing homes, nurses, surgical and dental appliances, and druggists to public assistance recipients who are past 65 years of age, or totally or permanently disabled, or blind, or dependent children or the guardians of dependent children.

Resolved, Further that this House recommends that any such legislation should make provision for the appointment of a medical advisory committee to consult with and advise the Missouri Division of Health on all matters affecting any phase of medical care connected with the program.

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

DR. MUETHER: The next item of the supplemental report of the Council deals with single license legislation.

SINGLE LICENSE LEGISLATION

The Council has been since 1953, at the direction of the House of Delegates attempting to formulate a workable solution to the present situation in Missouri in which there is multiple licensure of persons treating the sick. The 1954 House of Delegates approved and the Association sponsored in the 1955 General Assembly legislation which the Council regarded as a practical solution. The bill, Senate Bill 226, would have established a single board, composed of five doctors of medicine and two doctors of osteopathy (the ratio in which numbers of both groups are practicing in the state) to establish one standard of competence and issue in the future only a license for physicians and surgeons. Though presently licensed chiropractors would have been permitted to continue their strictly limited practice, no new chiropractors would be licensed and no new groups—such as naturopaths—would have had an opportunity to gain a foothold. The measure died in committee.

Subsequently, at the direction of the 1956 House of Delegates, the Council polled the membership of the Association to determine whether they favored any further efforts toward single license legislation. The poll showed conclusive approval of such an undertaking.

The State Osteopathic Association which had joined with our association in sponsoring Senate Bill 226 in 1955, said they believed there was no possibility of the Legislature passing a law such as the defeated measure, in which the licensing of new chiropractors would be prohibited. They started making plans to introduce in the 1957 Legislature a bill to amend their own practice act. They proposed to ask the Legislature to grant them unlimited practice rights, while continuing their examining, licensing and professional policies under their own osteopathic registration board.

The Council, some of whose members were convinced that the opposition of chiropractors would make impossible the passage of legislation identical to the old Senate Bill 226, authorized a special committee to meet with representatives of the osteopathic association. It was agreed that both groups would defer any endeavors toward practice act changes in the 1957 Legislature and would make recommendations to their respective Houses of Delegates for legislation to be sponsored in the 1959 Legislature.

The 1957 House of Delegates of our association passed a resolution favoring the creation of a single board of licensure for doctors of medicine and doctors of ostepathy—this board to be made up of physicians in both groups in the five to two proportion reflecting present numbers of licensed members of the respective groups resident in the State of Missouri. The House directed the officers, Council and staff of the Association to work with representatives of the osteopathic association on drafting such legislation and to submit a draft for final action to the 1958 House of Delegates.

In accordance with those instructions, a special committee of the Council has worked out with representatives of the osteopathic association a preliminary draft of a bill. This preliminary draft, a copy of which is in the folder of each member of this House, contains these principal provisions.

(1) Creation of a State Board of Registration for the Healing Arts composed of five doctors of medicine and two doctors of osteopathy.

(2) This board is to examine, license and regulate all qualified graduates of medical schools and osteopathic schools.

(3) One license, that of physician and surgeon, is to be issued by the board.

(4) Each license is to show whether the licensee is an M.D. or a D.O.

(5) Each licensee is to designate in all public listings whether he is an M.D. or a D.O.

(6) A "grandfather" clause is provided for the licensing of present medical and osteopathic physicians.

(7) While the act does not apply to chiropractors licensed and lawfully practicing under provisions of the state chiropractic law, it authorizes the State Board of Registration for the Healing Arts to institute injunctive action against any person treating the sick in violation of the terms of the act.

The following resolution is presented to the House of Delegates:

Whereas, It is apparent that the best interests of the public and the medical profession will be served by the setting of a single and high standard of competence for persons who shall in the future be licensed as physicians and surgeons, be it

Resolved, That the House of Delegates of the Missouri State Medical Association approve the preliminary draft of legislation submitted by the Council for creation of the State Board of Registration for the Healing Arts, be it further

Resolved, That the officers, Council and staff of the Association work with representatives of the Missouri Osteopathic Association to perfect a final draft of such legislation along the lines of the preliminary draft to the end that a bill shall be sponsored jointly by both groups in the 1959 General Assembly of Missouri.

Groups gathered after the banquet.

The Speaker referred this resolution to the Reference Committee on Miscellaneous Affairs.

Dr. Muether: The next item in the supplemental report of the Council deals with the Councilor District set-up.

STUDY OF COUNCILOR DISTRICT SET-UPS

In the course of the past year, the Council has received a petition from the Franklin-Gasconade-Warren County Medical Society to transfer from the Fourth to the Fifth Councilor District. A similar request has been made by the Barton-Dade County Medical Society to transfer from the Eighth to the Sixth Councilor District.

The Council has considered these requests and has met with representatives of Franklin-Gasconade-Warren group to get their thinking in the matter. These developments and this discussion focused attention on the fact that there has been no change in the Council District arrangement since 1937. In this period population and other conditions throughout the state have undergone significant changes. It appears to the Council that the time has come to review the whole question.

Therefore, the Council proposes a comprehensive review of the matter and proposes the following resolution for the consideration of the House:

Resolved, That the President of the Association appoint a committee of 10 made up of a representative of each of the Councilor Districts to study the adequacy of the present district set-up and make a report and recommendations to the 1959 session of the House of Delegates.

The Speaker referred this portion of the supplemental report of the Council, together with the part of the Council minutes of March 22 and 23 dealing with the Councilor District set-up, to the Reference Committee on Constitution and By-laws.

Paul R. Whitener, M.D., St. Ann: Mr. Speaker, I wish to present the following resolution:

Whereas, The St. Louis County Medical Society has grown to become the third largest society in the Missouri State Medical Association during the past twenty years and,

Whereas, The membership of the St. Louis County Medical Society is now greater than that of any of the societies comprising the 4th Councilor district and,

Whereas, The almost 400 members of the St. Louis County Medical Society feel a greater need for representation of their organization in the Council of the Missouri State Medical Association, therefore, be it

Resolved, That St. Louis County be formed into a new and separate Councilor District of the Missouri State Medical Association, and that the new Councilor District be represented by its own Councilor in the Council of the Missouri State Medical Association.

The Speaker referred this resolution to the Reference Committee on Constitution and By-laws.

Robert B. Bassett, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

Whereas, Over the past several years, a situation has developed wherein true proportional representation in the House of Delegates of the Missouri State Medical Association has ceased to exist, and

Whereas, At the present time 2,500 members in the metropolitan areas are represented by 51 delegates and three councilors while 1,100 member in the remaining parts of the state are represented by 99 delegates and 7 councilors, and

Whereas, Both representative segments of an organization, i.e., the house of delegates and the council, should not be elected on a geographical basis, be it therefore

Resolved, That a committee be appointed to study the problem and instructed to report its findings and recommendations to the House of Delegates at its 1959 meeting.

The Speaker referred this resolution to the Reference Committee on Constitution and By-laws.

Emmett B. Drescher, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

Whereas, The duly-elected Councilors of the several Councilor Districts collectively forming the Council of MSMA serve as the policy-making body of MSMA in the interim between sessions of its House of Delegates, and

WHEREAS, In this interim many questions concerning policy require decision and action, and

WHEREAS, Council action should reflect the will and desires of the majority of the members of MSMA, and

WHEREAS, In the past, important actions necessarily have been taken by the Council without consultation between Councilors and constituent societies in many instances, therefore be it

Resolved, By this House of Delegates of MSMA in annual session that the Council be requested to provide for a copy of the Agenda for each forthcoming meeting to reach each Councilor in ample time for him to seek opinions, instructions and advice on matters of importance from constituents or officers thereof before the Council meeting, and be it further

Resolved, That each Councilor report to his constituent society in person or writing within a reasonable time after each meeting of the Council on all actions and discussions of the Council on matters of policy.

The Speaker referred this resolution to the Reference Committee on Constitution and By-laws.

DR. MUETHER: The last item of the supplemental report of the Council deals with health insurance forms.

HEALTH INSURANCE FORMS

The Council desires to bring to the attention of the House of Delegates the results of a study it has made on health insurance policies sold in Missouri. The study was requested in a resolution adopted by the 1957 House of Delegates. A full report of the study follows this supplemental report.

The Council limited its study to commercial insurance firms because most physicians report that is where the great bulk of their trouble lies.

A panel on "Diabetes" was presented.

The Council also concentrated on possible standardization of reporting forms. While it is acknowledged there are other areas of disagreement with the commercial carriers, the main area of contention seems to stem from reporting forms one way or another. It was felt that if they could be improved, progress could be made later in other areas.

It soon became apparent it would be difficult to devise a single form that would cover every type of health insurance policy and be acceptable to every firm. The Council, however, found that considerable work already had been done on standardized reporting forms by the A.M.A. and the Health Insurance Council (HIC).

In fact, the HIC and the A.M.A. have worked out six standardized reporting forms that seem to be the answer to our problem. While there are six of them, they are in essence adaptations of two basic forms—one for group coverage and the other for individual protection. As the A.M.A. pointed out, a physician normally would only be asked to complete the one form which is most appropriate.

Endorsement of the six forms by the MSMA would not, of course, completely solve the problem. However, it would be a step in the right direction. The vast majority of the commercial carriers belong to the HIC and naturally would be happy to switch to the six forms. For those who are not members, the situation would be unchanged.

The Council wishes at this time to recommend the House endorse the six standardized attending physicians forms designed by the HIC and endorsed by the A.M.A.

The Speaker referred this portion of the supplemental report of the Council and the part of the report of the Council meeting of March 22 and 23 dealing with health insurance forms to the Reference Committee on Miscellaneous Affairs.

W. S. Sewell, M.D., Springfield, President, announced the Committee on Nominations as follows:

Committee on Nominations

E. W. Allen, M.D., Carrollton.
J. J. Wimp, M.D., Kirksville.
Louis H. Kohler, M.D., St. Louis, Chairman.
Paul Berry, M.D., Troy.
W. L. Allee, M.D., Eldon.
A. L. Lowe, M.D., Sedalia.
Dillard M. Eubank, M.D., Kansas City.
Stanley Peterson, M.D., Springfield.
H. W. Carrington, M D., Lebanon.
Harry Roebber, M.D., Bonne Terre.

JOSEPH B. KENDIS, M.D., St. Louis: Mr. Speaker, I would like to present the following resolution:

WHEREAS, Economy in government wherever possible is highly desirable and in these times is particularly desirable in federal government as well as state and local government and,

WHEREAS, According to special report 85-3 of Washington office of A.M.A. federal expenditures for the care of veterans in V.A. Hospitals for disabilities, both service connected and non-service connected have reached stupendous proportions and in 1957 were $619,614,000, and,

WHEREAS, About 75 per cent of those hospitalized in V.A. Hospitals in 1957 had non-service connected disabilities, the great majority of which were known to be non-service connected at the time these patients were admitted, and

WHEREAS, The alleged oath of inability to pay for medical care of the disability for which application for admission to V.A. Hospitals may be signed and in fact is being signed by many patients without challenge who are not medically indigent by any reasonable standard, and,

WHEREAS, Many truly medically indigent patients with non-service connected disabilities are now being treated in V.A. Hospitals at great expense to the federal government even though they have legal access without charge to excellent municipal, county or state hospitals maintained for just such a purpose, and,

WHEREAS, The medical care of its indigent is the legal responsibility of each of the several states or one of their counties or municipalities, therefore be it

Resolved, By this House of Delegates of MSMA in annual session that the admission policy of V.A. Hospitals as related to patients with non-service connected disabilities who have legal access to other hospitals without charge to be condemned and that the congress of the United States be urged to correct this error in the interest of federal economy by appropriate congressional action, and, be it therefore

Resolved, That copies of this resolution be forwarded to each Senator and Congressman from Missouri.

The Speaker referred this resolution to the Reference Committee on Miscellaneous Affairs.

Leonard T. Furlow, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

MSMA SURPLUS TO AMEF

Whereas, It should be recognized by all members of the medical profession that the support of medical education is necessary, and

Whereas, If not supported, governmental financing and eventual control will occur, and

Whereas, The American Medical Education Foundation has been set up by the American Medical Association to encourage such support, and

Whereas, Our sister state of Illinois in 1956 and 1957 contributed over $296,000.00 to the AMEF, and,

Whereas, In the same two years Missouri contributed less than $17,000.00, now therefore be it

Resolved, That $10.00 of the annual $35.00 dues for each Active member of the MSMA be set aside as a contribution to the AMEF, and be it

Resolved, That this money be apportioned among the three medical schools in the State of Missouri, the amount going to each school being determined by the ratio of the number of its undergraduate medical students.

The Speaker referred this resolution to the Reference Committee on Constitution and By-laws.

Robert W. Kelley, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

MISSOURI MEDICAL SERVICE

Whereas, The Missouri Medical Service, Inc., operates in only part of the State of Missouri, the remaining part of the State operating under Surgical Care, Inc. of Kansas City, and

Whereas, It is inconsistent for the Delegates and Councilors of the component Societies in one Plan to vote on the policies of the other Plan, therefore be it

Resolved, That the Missouri State Medical Association relinquish its sponsorship of the Missouri Medical Service and assign this sponsorship to those component Societies now operating under the Missouri Medical Service.

The Speaker referred this resolution to the Reference Committee on Miscellaneous Affairs.

William H. Bailey, M.D., St. Louis: Mr. Speaker, I would like to present the following resolution:

RESTRICT V.A. TO SERVICE CONNECTED DISABILITY

Whereas, According to special report 85-3 of the Washington office of the A.M.A. the federal government spent $619,614,000 on hospitalized medical care of veterans in V.A. Hospitals in 1957 of which about 75 per cent had non-service connected disabilities, and

Whereas, Ways and means of obtaining economy in federal government are allegedly being sought by congress at this time, therefore be it

Resolved, That this House of Delegates of MSMA urges congressional action to restrict hospitalization of veterans at V.A. Hospitals to those with service connected disabilities, and be it further

Resolved, That the organized medical profession of Missouri offer to provide the V.A. with competent attending and consultant staffs of a quality acceptable to Dean's Committees provided admissions to V.A. Hospitals are restricted to patients with service connected disabilities, and be it further

Resolved, That the delegation to House of Delegates of A.M.A. from MSMA be instructed to offer a comparable resolution in that House of Delegates.

The Speaker referred this resolution to the Reference Committee on Miscellaneous Affairs.

Walter Baumgarten, Jr., M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

STATE MENTAL INSTITUTIONS

Whereas, The recent governors and legislatures of Missouri have shown active interest in the quality of medical care in our State Mental Hospitals and Training Schools and the State Mental Health Commission has been fortunate indeed to obtain an outstanding Director of the Division of Mental Diseases, Dr. Duval, and

Whereas, In the past the substandard condition of these institutions is due to generations of neglect and inadequate support and the recent program to revitalize the medical and humane care of our mentally ill or deficient will require much more and continued support if our physical plants and inadequate personnel are to be made effective in a mid-twentieth century mental health program, and

Whereas, The national shortage of psychiatrists and trained attendants is so acute that our State Director of Mental Diseases and his superintendents are at a great disadvantage in these labor markets since their funds and the physical plants are inadequate to attain the minimum standards recommended by the American Psychiatric Society, therefore, be it

Resolved, That this House of Delegates affirm a deep concern for our State Mental Institutions and the patients committed to their care, and that we wish to promote the rehabilitation of our State Mental Hospitals and Training Schools, and will personally publicize the need for more adequate professional personnel and financial support, and be it further

Resolved, That this House of Delegates direct the officers and the Council of the Missouri State Medical Association also to publicize this need through the journal of the MSMA and our state office for improved psychiatric and medical care in our State Mental Hospitals and Training Schools, and be it finally

Resolved, That the governor and the legislators of Missouri be advised that there is still urgent need for more adequate appropriations for our State Mental Hospitals and Training Schools; funds for professional employees and trained attendants; funds for rebuilding and bed expansion; and funds for full equipment for the most modern and effective treatment of these mentally ill patients committed to the charge of the State of Missouri, and lastly, that the state legislature be advised to not embark on further medical care programs until this care of the mentally ill has been brought up to standard.

The Speaker referred this resolution to the Reference Committee on Resolutions.

Members conferred with General Robinson after his presentation.

James R. Meador, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

JUNIOR MEMBERSHIP

Whereas, There has been a lengthening of the postgraduate training of physicians to a term of three to five years so that entry into the active practice of medicine occurs no sooner than three to five years after graduation from medical school, and

Whereas, The By-laws of the Missouri State Medical Association (Chapter 1 Membership, Section 3, Paragraph 2) which states: "Junior Members shall be limited to those members of component societies who become members within the first four years subsequent to graduation from medical school," does not take into account this change in the length of postgraduate medical training, and

Whereas, It is of greatest importance to encourage young physicians to enter the ranks of organized medicine as soon as they are qualified, therefore be it

Resolved, That the By-laws of the Missouri State Medical Association should be amended to read: "Junior Members shall be limited to those members of component societies who become members within the first three years subsequent to completion of a formal course of training in medicine which is approved by the Council on Medical Education of the A.M.A.

The Speaker referred this resolution to the Reference Committee on Constitution and By-laws.

The Speaker declared the session adjourned at 3:45 p.m.

Monday, April 14, 1958

The House of Delegates convened at 4:30 p.m. in the Crystal Room of the Sheraton-Jefferson Hotel, St. Louis, with Joseph L. Fisher, M.D., Speaker, presiding.

James R. Meador, M.D., St. Louis, reported for the Credentials Committee.

Walter S. Sewell, M.D., Springfield: Mr. Speaker, it is my privilege as President of the Missouri Medical Service, Blue Shield Plan, to announce a new development of our plan of great importance and benefit to the health care and protection of the old people of our state. The following is the sum and substance of this plan.

Action to make nongroup members in the St. Louis Blue Shield Medical-Surgical Protection Plan available to everyone regardless of age has been taken by the organization's board of trustees. Formerly, although membership in Blue Shield was available to anyone joining through a group, there was no provision for people to join on an individual nongroup basis after the age of 60. Now, under the new membership revision, effective April 15, regular nongroup membership will be available to anyone completing a satisfactory statement regardless of age. Blue Shield has been concerned about the problem of the old age group for some time. Advances in medical science have both increased the average age of life and furnished better means of treatment for the diseases of old people. With an even greater need to have some surgical protction to those in the older age group, it is appropriate that Blue Shield, under the guidance of the medical profession, should take the lead to provide that protection.

Scientific exhibits were viewed during intermission.

As a community service organization, Blue Shield has and feels the responsibility concerning the need of all people in the community. With Blue Shield nongroup membership now available regardless of age, many people previously unable to obtain medical or surgical coverage of any kind, will be able to have the advantages of proper protection they need.

Speaker: We have received a telegram from the Henry County Medical Society as follows: "We, of the Henry County Medical Society oppose social security of physicians. Believe we should sponsor and finance a plan for taking care of our own indigent physicians. William J. Smith, M.D., President."

Ronald F. Elkins, M.D., Springfield, invited delegates to the Greene County Hospitality room and to the reception in honor of Dr. Sewell on Tuesday evening preceding the banquet.

O. B. Barger, M.D., Harrisonville, reported for the Reference Committee on Constitution and By-laws.

REPORT OF THE REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Mr. Speaker, I would like to say that this report is presented with extreme humility. It is presented so because there are controversial matters that had to be settled in a committee report and a great deal of time was required in the deliberation and I want to say that the Committee acted in good faith, that we were unanimous in agreement on every item except items 3 and 4, on which one member of the Committee wishes to present a minority report. On item 2 there is a slight additional action required which I will point out.

The Reference Committee on Amendments to the Constitution and By-laws met at 5:15 p.m., April 13, 1958. The following members were present: Drs. O. B. Barger, Chairman; G. W. Winn, Sam J. Merenda, William T. McNew and F. A. Barnett.

Seven items were referred for action and the following report is submitted:

Items 1 and 2 refer to the published reports of the Committee on Constitution and By-laws and the Committee on Conservation of Eyesight. Since both of these reports are obvious and noncontroversial, the Committee recommends that the published report be approved.

I move the adoption of this portion of the report.

On second, this part of the report was adopted.

Dr. Barger: We submit the following amendment to the by-laws as requested by the Committee on Conservation of Eyesight: Amend Chapter 7, Sec. 2, by striking out the words "The Committee on Conservation of Eyesight" and inserting in lieu thereof the words "Committee on Eye Health." Further amend Chapter 7, Sec. 2, by striking out at the beginning of the paragraph relating to the duties of the Committee on Conservation of Eyesight the following: "Committee on Conservation of Eyesight" and insert in lieu thereof "The Committee on Eye Health."

Mr. Speaker, I move that this amendment be placed on the table for one day so that it may be acted on.

Upon second, the motion was adopted.

Dr. Barger: Item 3 refers to a resolution by the St. Louis County Medical Society asking that it be made a separate Councilor District, and Item 4 refers to a resolution by the St. Louis City Society requesting that a committee be appointed to study the problems of the present Councilor Districts as pertain to present distribution and representation. It is the opinion of the Committee that the purpose of these two resolutions can be accomplished by the adoption of the published supplemental report of the Council as pertains to Councilor Districts and we, therefore, recommend the adoption of this supplemental published report. There is a minority report from the Committee on this matter.

Sam J. Merenda, M.D., St. Louis: When the St. Louis County Medical Society introduced the resolution they had a particular problem in mind, that they felt they were big enough that they should be a separate councilor district. I think that everyone on the reference committee was in agreement with it, but the only disagreement was, did the report of the majority specifically state that this appointed committee of ten would direct to the delegates next year that St. Louis County have a specific councilor district. For that reason, I would like to introduce this amendment:

Resolved, That the majority report be amended to add this paragraph: "That the appointed committee of ten be directed to specify in their recommendations to the 1959 session of the House of Delegates that St. Louis County be made a separate councilor district with its own councilor." The motion was seconded.

On vote the amendment was defeated.

Following second on the motion to adopt the majority report, it was discussed by Drs. Paul R. Whitener, Merenda, Barger, John A Growdon, David N. Kerr.

David N. Kerr, M.D., St. Louis, offered the following amendment to the majority report: That the said committee, if appointed, be aware that redistribution of delegates to the MSMA Annual Session may involve more than redistricting of the state and should be so regarded.

On second, the amendment was adopted.

On vote, this portion of the majority report, as amended, was adopted.

Dr. Barger: Item 5 refers to a resolution requesting the Council of the MSMA to furnish published copies of the agenda of forthcoming meetings to each Councilor in ample time for said Councilor to communicate with his constituent societies. The Committee is in sympathy with the intent of this resolution and wholeheartedly endorses such action. However, the Committee is of the opinion it is impractical and unnecessary to legislate personal duties. Therefore, the Committee recommends that no action be taken on this resolution. I move that this portion of the report be adopted.

On second, this portion of the report was adopted.

Dr. Barger: Item 6 refers to a resolution which provides for $10 of the annual $35 dues for each active member of the MSMA to be set aside as a contribution to the A.M.E.F. with the further provision that the money be apportioned among the medical schools of Missouri.

The Committee is in full sympathy with the intent of this resolution and is cognizant of the fact that the doctors of Missouri are not contributing adequate funds to the A.M.E.F. in comparison with figures submitted from other states. However, it is the opinion of the Committee that the income and budget of the MSMA are necessarily flexible and should not be hampered by a definite commitment of this type. The Committee recommends that in the event sufficient surplus funds accumulate in future years, that serious consideration be given to a program of this type. The Committee further suggests that any such commitment should be on a year-to-year basis rather than a long-term program. I move the adoption of this portion of the report.

The motion was seconded.

Jerome I. Simon, M.D., St. Louis, Treasurer, discussed the funds and budget of the Association and answered questions.

The Field Secretary and Dr. Perry chat.

On vote this portion of the report was adopted.

Dr. Barger: Item 7 refers to a resolution pertaining to Junior membership. Since this resolution represents an amendment to the By-laws, the Committee recommends that the resolution be laid on the table for one day and taken up at the next regular session. I move that this be done.

Upon second, the motion was carried.

On the motion of Dr. Barger, duly seconded, the report as a whole, as amended, on vote was approved.

Kenneth Glover, M.D., Mount Vernon, reported for the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions met on Sunday afternoon, April 13, 1958, and considered the resolutions submitted to it by the House of Delegates. The matters referred to the Committee were (1) Resolution on the State Mental Institutions of Missouri, (2) Resolution on the Forand bill, and (3) Resolutions on the Medicare program.

The Committee recommended that the Resolution on the State Mental Institutions be adopted as printed with one minor change in the phrasing in the third paragraph and the deletion of the final paragraph which had been written into the Resolution.

RESOLUTION ON THE STATE MENTAL INSTITUTIONS OF MISSOURI

Whereas, The recent Governors and Legislatures of Missouri have shown active interest in the quality of Medical Care in our State Mental Hospitals and Training Schools, and the State Mental Health Commission has been fortunate indeed to obtain an outstanding Director of the Division of Mental Diseases, Dr. Duval, and

Whereas, In the past the substandard condition of these institutions is due to generations of neglect and inadequate support and the recent program to revitalize the medical and humane care of our mentally ill or deficient will require much more and continued support if our physical plants and inadequate personnel are to be made effective in a mid-twentieth century mental health program, and

Whereas, The national shortage of psychiatrists and trained attendants is so acute that our State Director of Mental Diseases and his superintendents are at a great disadvantage in adequately trained personnel since their funds and the physical plants are inadequate to attain the minimum standards recommended by the American Psychiatric Society therefore, be it

Resolved, That this House of Delegates affirm a deep concern for our State Mental Institutions and the patients committed to their care, and that we wish to promote the rehabilitation of our State Mental Hospitals and Training Schools, and will personally publicize the need for more adequate professional personnel and financial support, and be it further

Resolved, That this House of Delegates direct the officers and the Council of the Missouri State Medical Association also to publicize this need through the journal of MSMA and our State Office for improved psychiatric and medical care in our State Mental Hospitals and Training Schools, and be it (word "finally"—deleted)

Resolved, That the Governor and the Legislators of Missouri be advised that there is still urgent need for more adequate appropriations for our State Mental Hospitals and Training Schools; funds for professional employees and trained attendants; funds for rebuilding and bed expansion; and funds for full equipment for the most modern and effective treatment of these mentally ill patients committed to the charge of the State of Missouri.

The Committee unanimously recommended deletion of the final portion of the printed resolution which read, and I quote, "Lastly that the State and Legislature be advised not to embark on further Medical Care programs until this care of the mentally ill has been brought up to standards."

The Reference Committee on Resolutions met following the meeting of the House.

Mr. Speaker, I move acceptance of this portion of the report.

On second, this portion of the report was accepted.

The Council has recommended the following Resolution to indicate their opposition to the Forand Bill:

Whereas, House Resolution 9467, introduced by Congressman Forand of Rhode Island, would, through alarming increases in Federal payroll taxes, provide Federal government-paid hospitalization and surgery to all persons, regardless of their economic need, who are eligible for the old age and survivors insurance benefits of the Social Security Act; and

Whereas, Voluntary health insurance plans have made tremendous strides toward providing the health care protection so essential for the elder men and women of this country; and

Whereas, Enactment of House Resolution 9467 would inevitably lead to further legislation resulting in the Federal government's taking over provision of hospital and medical care of the entire population, with consequent deterioration in the present high quality of medical and hospital care; now therefore, be it

Resolved, That the House of Delegates of the Missouri State Medical Association authorize the officers, Council and staff of the Association to take all continuing appropriate actions necessary to aid in opposition to the Forand Bill and all similar measures in Congress.

The Committee considered this Resolution and we strongly urge opposition to the Forand Bill.

Mr. Speaker, I move acceptance of this portion of the report.

On second, this portion of the report was adopted.

The Medicare Program was considered by the Committee. Charles H. Cullers, M.D., Trenton, delegate from Grundy County, appeared before the Committee and moved that the following resolution be adopted:

Dr. Glover reported for the Reference Committee on Resolutions.

Resolved, That the Council be authorized and directed to negotiate a new Medicare contract with the Department of Defense to continue the program beyond the expiration of our present contract September, 30, 1958, and recommend continuation of a published fee schedule.

David N. Kerr, M.D., St. Louis, a member of the Committee, moved that the Committee defer Dr. Cullers' resolution until the Committee had an opportunity to consider any alternate resolutions which might be presented. This motion was seconded by John P. Mabrey, M.D., Plattsburg. The Committee unanimously voted to postpone making a recommendation to the House of Delegates on the Medicare program until after the second meeting of the House on Monday, April 14.

On motion of Dr. Glover, duly seconded, the report as a whole was adopted.

Paul F. Max, M.D., St. Louis, presented the report of the Reference Committee on Miscellaneous Affairs.

REPORT OF THE REFERENCE COMMITTEE ON MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs met in Room 8 at the Sheraton-Jefferson Hotel, Sunday, April 13, at 4:00 p. m. with all members present. The reports of the committees as published in the Reports of Officers and Committees were studied.

The report of the Committee on Defense was approved as read.

The report of the Committee on Cancer was approved as read.

The report of the Committee on Mental Health was approved as read.

The report of the Committee on Maternal Welfare was approved as read.

The report of the Committee on Infant and Child Care was approved as read.

The report of the Committee on Health and Public Instruction was approved as read.

The report of the Committee on Control of Venereal Disease was approved as read.

The report of the Committee on Diabetes was approved as read.

The report of the Committee on Physical Medicine and Rehabilitation was approved as read.

The report of the Committee on Civil Defense was approved as read.

The report of the Committee on Tuberculosis was approved as read.

The report of the Committee on Rural Medical Service was approved as read.

The report of the Committee on Alcoholism was approved as read.

On second, this portion of the report was adopted.

Dr. Max: The Reference Committee on Miscellaneous Affairs endorses the six standardized attending physician insurance forms as requested by the Council and designed by the HIC and endorsed by the A.M.A. This is approved as written.

The Committee approves the report of the special committee of the Council to study Workmen's Compensation Laws.

Mr. Speaker, I move the adoption of this portion of the report.

On second, this portion of the report was adopted.

Dr. Max reported for the Reference Committee on Miscellaneous Affairs.

Dr. Max: The Committee unanimously recommends approval of the resolution on the Veterans Administration introduced by Dr. Kendis. The Committee unanimously recommends approval of the resolution on the Veterans Administration introduced by Dr. Bailey.

Mr. Speaker, I move the adoption of this portion of the report.

On second, this portion of the report was adopted.

Dr. Max: On the resolution on Blue Shield introduced by Dr. Kelley, the majority of the Committee recommends the adoption of this resolution. There may be a minority report.

I move the adoption of this portion of the report.

The motion was seconded.

T. M. Macdonnell, M.D., Marshfield: It is the recommendation of the minority of the Committee on Miscellaneous Affairs concerning the resolution on Missouri Medical Service that the MSMA retain sponsorship of Missouri Medical Service and local medical societies in the area served by the plan shall be consulted in its management. I move the adoption of this amendment. The motion was seconded. This was discussed by Drs. Eberle, Peterson, Kelley and Sauer.

Dr. Wood spoke during a committee hearing.

Dr. Macdonnell was questioned as to the word "only" in the recommendation and this was discussed by Dr. Macdonnell, Dr. Durand Benjamin, Dr. Max, Dr. James Dowd, Dr. A. P. Rowlette and Dr. David N. Kerr.

David N. Kerr, St. Louis: I would like to offer an amendment to the minority recommendation as follows: It is the recommendation of the minority of the Committee on Miscellaneous Affairs concerning the resolution on Missouri Medical Service that the MSMA retain sponsorship of Missouri Medical Service and only local medical societies in the area served by the plan shall be consulted in its management. I move the adoption of this amendment. The motion was seconded.

On vote the amendment inserting the word "only" was adopted.

On vote the minority report was adopted.

Dr. Max: Single License Legislation, Supplemental Report of the Council. The Reference Committee on Miscellaneous Affairs taking due cognizance of the views expressed by members appearing before them suggest the revision of section 7, paragraph 1, (page 6) striking out the words: "and upon submission of evidence satisfactory to the board that the applicant in the year preceding the application for renewal attended at least two days of an education program or its equivalent approved by the board," and also striking out the following sentence: "The board may, in individual cases, waive compliance with the requirement of attendance of an education program or its equivalent when the applicant presents evidence that due to illness, absence from the country, hardship or other valid reasons he was unable to attend the required course." So that section 7, paragraph 1, will now read:

"Upon due application therefor and upon submission by such person of evidence satisfactory to the board that he is licensed to practice in this state, and upon the payment of fees required to be paid by this act, the board shall issue to him a certificate of registration under the seal of the board, which shall recite that he is duly registered for the year specified. The certificate of registration shall contain the name of the person to whom it is issued and his office address and residence address, the date and number of the license to practice, and such other information as the board deems advisable," and with this revision recommends approval of the resolution requested by the Council.

Instruction courses were informal.

Mr. Speaker, I move adoption of this portion of the report.

On second, this portion of the report was adopted.

On motion of Dr. Max, duly seconded, the report *en toto* as amended was adopted.

Robert C. Kingsland, M.D., St. Louis, presented the report of the Reference Committee on Medical Education and Public Welfare.

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL EDUCATION AND PUBLIC WELFARE

The Reference Committee on Medical Education and Public Welfare of the Missouri State Medical Association met at 5:15 p.m., April 13, 1958. All members were present.

The Report of the Committee on Scientific and Postgraduate Work was approved. The Committee felt that the attention of the University of Missouri Medical School should be directed to complaints of certain members of this organization that applications for hospitalization were not being properly acknowledged.

The Report of the Committee on Medical Education and Hospitals was accepted and commended.

The Report of the Committee on Publication was favorably received.

This Committee wholeheartedly approves the report of the A.M.E.F. Committee and endorses voluntary contributions whether individual or organizational, rather than allowing Federal funds to be employed for this purpose.

The Report of the Committee on Laboratory Medicine was approved and the Committee commended on its three-fold program.

On motion of Dr. Kingsland, duly seconded, the report of the Committee was adopted.

John P. Ferguson, M.D., Springfield, presented the report of the Reference Committee on Reports of Officers.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in the Crystal Room of the Sheraton-Jefferson Hotel, Sunday, April 13, at 4:15 p.m., with all members present.

The address of the President, Dr. Sewell, and that of the President-elect, Dr. Francka, were unanimously approved. The Committee extends to Dr. Sewell its thanks and that of the entire State Association for his unselfish devotion to his thankless job of the past year. The Committee likewise extends its best wishes to Dr. Francka for a very successful coming year.

Dr. Ferguson was chairman of the Reference Committee on Reports of Officers.

The Reports of the Secretary, the executive secretary and the Treasurer were approved as published.

The Reports of the following committees, namely, Public Policy and Public Relations, Medical Economics, Hospital and Professional Relations, were likewise approved as published.

Dr. Neal presented a motion on the floor of the House.

Mr. Speaker: I move that this portion of the report be approved.

On second, this portion of the report was adopted.

Dr. Ferguson: The Report of the Council, as published in the booklet, was approved by the Committee.

Mr. Speaker: I move that this portion of the report be approved.

On second, this portion of the report was adopted.

Dr. Ferguson: The Vendor Program, being the only portion of the Supplemental Report of the Council, which was referred to this Committee, was discussed at great length by various members of the Association. Since it has come to the attention of this Committee that another resolution is to be presented on the vendor program, we have delayed reporting any final action of this portion of the Supplemental Report.

Mr. Speaker, I move the adoption of this portion of the report.

On second, this portion of the report was adopted.

On motion of Dr. Ferguson, duly seconded, the report as a whole was adopted.

Philip L. Byers, M.D., Kansas City, presented the report of the Committee on Necrology.

REPORT OF THE COMMITTEE ON NECROLOGY

Mr. Speaker, the Committee on Necrology met at 4:15 p.m., April 13, with all members present. The Committee presents to you for adoption the following resolution:

Whereas, The death of senior members of the Association deprives the organization of the benefit of their knowledge through experience, as well as long established fellowship, and

Whereas, The death of younger members takes from the Association the possibility of their strong leadership, and

Whereas, During the last year 65 members of the Association have died, among them three Past Presidents, be it

Resolved, That the grief and feeling of bereavement of the membership be expressed and made a part of the minutes, this the 100th Annual Session, of the Missouri State Medical Association, and be it further

Resolved, That condolences of the Association for the loss suffered by the families of these physicians be expressed, and be it further

Resolved, That the following names of deceased members during the last twelve months be made a part of this resolution.

Members Deceased Since the 1957 Annual Session

Elmer D. Twyman, Kansas City
Fenton J. Petersen, St. Louis
Arthur D. Craig, Springfield
Charles J. Sellers, Mount Moriah
Walter H. Burke, Springfield
William E. Lewis, Kansas City
Bernard L. Sinner, St. Louis
Lewis H. Ferguson, Monett
William J. Hux, Essex
Charles E. Maness, Neosho
Alexandre D. Moruzi, Kansas City
Leland B. Alford, St. Louis
Arthur R. Timerman, Ocala, Fla.
Adolph G. Schlossstein, St. Louis
Victor K. Hugo, St. Louis
Irwin J. Harris, St. Louis
John O. McNeel, St. Louis
William J. Gallagher, St. Louis
George Hopson, DeSoto
Homer E. White, Naylor
Dock T. Hatcher, Pensacola, Fla.
James R. Hall, Kansas City
Riley M. Stormont, Webb City
Ira H. Lockwood, Kansas City
Albert N. Lemoine, Kansas City
Linus M. Ryan, St. Louis
Abraham Sophian, Miami, Fla.
Henry A. Uhlemeyer, St. Louis
William D. West, Mendon
Albert J. Campbell, Sedalia
W. K. McCall, Laddonia
Augustus W. Peters, St. Louis
Abram T. Quinn, St. Louis
J. Frank Harrison, Mexico
Robert M. James, Joplin
William E. Jones, St. Louis
Fred J. Longfield, Lathrop
William H. Minton, St. Joseph
Peter G. Moskop, St. Louis
Ida May Nulton, Lancaster
John P. Burke, Albuquerque
Adolph H. Conrad, St. Louis
John R. Elliott, St. Joseph
Frederick C. Lamar, Kansas City
G. Wilse Robinson, Sr., Kansas City
Edna M. Stone, St. Louis
Henry E. Thomason, Summers, Ark.
D. Clay Todd, St. Louis
Harvey M. Wall, Windsor
Ursa C. Weston, Galt
John E. Brown, Perry
Alfred J. C. Schwarts, Chicago
Thomas A. Blackmore, Windsor
Edward A. Hicks, Troy
Ward H. Leonard, Kansas City
Philip Schuck, St. Louis
Doris S. Woolsey, St. Louis
Edward G. Claiborn, Camdenton
Maxwell Fineberg, St. Louis
Alexander J. Kotkis, St. Louis
Edwin E. Kurtzeborn, Tampa, Fla.
C. T. Ryland, Lexington
William L. Sharp, St. Louis
Floyd W. Tuttle, Clinton, Iowa
Ray B. Jordan, Windsor
Lewis M. Webb. St. Louis

Dr. Byers moved that the House of Delegates give unanimous consent to consider the resolution at this time. Unanimous consent being given, the resolution was adopted by standing unanimous vote.

Dr. Byers: It is the feeling of the Committee that appropriate individual memorials should be published of the following men by reason of their being Past Presidents in the instances of J. Frank Harrison, M.D., C. T. Ryland, M.D., and G. Wilse Robinson, Sr., M.D., and of Ira H. Lockwood, M.D., by reason of his national standing in his field of radiology and contributions to that field of medicine. I move that this Committee be empowered to prepare such individual memorials and that they be published in the minutes of this 100th Annual Session.

Upon second, this motion was adopted.

J. Frank Harrison, M.D.
1871-1957
In Memoriam

Dr. J. Frank Harrison, a graduate of Missouri Medical College in 1898, was born, nurtured, educated and spent his professional life in Missouri. He received merited recognition for services as administrator-physician in the role of assistant superintendent and as superintendent to Missouri State Hospitals Nos. 1 and 4 at Fulton and Farmington for eight years. From 1910 until retirement in 1944, because of personal incapacitating illness, he gave his skill, interest and energy to the citizenry of and near Mexico, Missouri.

During World War I as Captain he served in the Medical Corps of the U.S. Army. For three terms he was elected and served as Mayor of Mexico, Missouri (1916-1922). The Missouri State Medical Association chose him as its President in 1931, and in 1940 he was elected to the Missouri General Assembly. While serving in that body he was a leader in procedures that ultimately gave to Missouri its Ellis Fischel State Cancer Hospital and a full four-year medical school and the medical center.

With his honest, earnest efforts he made many worthy contributions during a period when Missouri was struggling to clean her house and raise her head in the field of medicine. One who respected justice, believed in and practiced mercy and compassion, his life was an honorable example to his profession and to the society in which he lived and labored. He was able to meet obstacles, real and fancied, fair and unfair, personal and professional, within and outside his calling, as a man—uncomplainingly. He believed there was no substitute for, or honourable way around intellectual ability and honesty—moral and professional integrity.

His life was a reminder to everybody, everywhere that people count and that the hope, beauty, courage and goodness that one of us brings to this earth lives on and on after our passing. Possessed with endless patience, kindness, courage, tenderness, and a conspicuous virtue—humility—he was a great physician, an esteemed citizen and the follower of a faith and a conscience.

He believed in his profession and its responsibilities, his country and its place among nations and his church where he found comfort, solace and strength. His greatness has not been emblazoned on any monument, but if nobility brings admiration and reward, he possessed great riches. An epitaph in St. Paul's Cathedral in London to Sir Christopher Wren, its architect and builder, reads: ". . . if you seek his monument, look around you." These words are significantly applicable to Frank Harrison to whom we are grateful for his dedicated, gifted, faithful and loyal devotion and service to humanity.

The Committee charged with the preparation of this "Memoriam" on behalf of the House of Delegates of the Missouri State Medical Association meeting in St. Louis, April 16, 1958, recommends that this evidence of esteem be not only incorporated in the minutes of that meeting, but that copies be sent to the near relatives of Dr. Harrison and to the *Mexico Evening Ledger*, Mexico, Missouri.

M. Pinson Neal, M.D.

Caius Tacitus Ryland
1874-1958

A Memorial

Dr. Ryland died February 16, 1958, at his home in Lexington and was buried in the family lot of his parents and grandparents in Macpelah Cemetery.

The son of Judge John Edwin and Nancy Pettice Ryland, he was born on April 20, 1874 at Lexington, Missouri. His paternal grandfather who served for many years as a justice of the Missouri Supreme Court possessed a comprehensive knowledge of Latin and a love of the classic authors which caused him to bestow the name Caius Tacitus on his oldest son for whom Dr. Ryland was named.

He attended the public schools and Wentworth Military Academy in Lexington and studied medicine at the Beaumont Medical College in St. Louis where he graduated in 1897. He served an internship at St. Mary's Hospital in St. Louis and a year as resident physician at the hospital in Sedalia before entering practice in Lexington in 1899.

Dr. Ryland was married to Miss Bettie Belle Perrie, daughter of Dr. and Mrs. John Perrie of Mayview, Missouri, on September 2, 1903.

Always participating actively in the life of his community Dr. Ryland served as a member of the board of stewards and as a trustee of the Methodist Church; president of the Chamber of Commerce; and as president of the Lexington Rotary Club. He was a member for more than 50 years and a Past Master of Lexington Lodge No. 149 A.F. & A.M.; a member of Lexington Chapter No. 10 of Royal Arch Masons and a member of DeMolay Commandery No. 3, Knights Templar.

During World War I he was commissioned Captain in the Medical Corps and served at Camp Grant, Illinois. During World War II he served as examiner for the Lafayette County Selective Service Board.

Widely known among Missouri physicians as "Tass," he was a member of the staff of Research Hospital for many years and a member of the honorary staff of Lexington Memorial Hospital. He served on several committees of the Missouri State Medical Association and his interest in organized medicine was climaxed by serving as President of the State Association in 1934-1935.

Dr. Ryland retired from active medical practice in 1947 and two years later underwent the first of several leg amputations so that the last seven years of his life were spent in a wheel chair as a double amputee. He retained a keen interest in medical affairs until his death from carcinoma of the lung.

His influence on medical practice and particularly his insistence on the highest ethical relations among physicians and patients will long be felt. He will long be respected for his many fine deeds and devotion to his patients. He will forever be adored for his sustained and unwavering devotion to his invalid wife who is his only survivor.

Joe S. Cope, M.D.

George Wilse Robinson
1871-1958

A Memorial

During his years in Kansas City, Dr. Robinson became friend, counselor and physician to many. He achieved admiration and respect of all and was a long time leader in the field of nervous and mental diseases. He was a vigorous and active man to the last, filled with the joy of living with his many friends and the devotion of and for his family. Life ebbed away during his sleep on the morning of January 22, at the age of 86 years.

Dr. Robinson was born in St. Clair County, Missouri, and received his early education in that area. Later, after one year at the University of Missouri, he received his medical education at the Beaumont Medical College, of St. Louis, Missouri, and graduated with the degree of Doctor of Medicine in 1896. After practicing in the rural areas of Appleton City and Joplin, he came to Kansas City in 1902 and began his interesting and ardent medical pioneering; for a time, in general practice; then a teacher in the Medical School; later as the Medical Director in his three respective private institutions for the treatment of nervous and mental disorders. He became a member of the faculty of the University Medical College, Kansas City, as a teacher and was Professor of Psychology until 1913, when the medical school closed. In 1907 he was appointed Superintendent of the State Hospital at Nevada, and in 1908 was elected Delegate from Vernon County to the State Medical Convention, this being his first official representation in the State Medical Activities. After returning to Kansas City in 1909, he continued to serve as a State Medical Delegate from the Jackson County Medical Society for many years. Further recognition was given to Dr. Robinson because of his leadership, outstanding ability, diligent work and reliability, namely; Superintendent of the Kansas City General Hospital, 1909 to 1910; President of the Jackson County Medical Society, 1918; President of the Kansas City Academy of Medicine in 1921; and President of the Missouri State Medical Association in 1923.

During World War I, Dr. Robinson was commissioned a Captain in the United States Army and went to France in 1918 as Chief of Neuropsychiatry of Base Hospital 28. He returned home in 1919 with the rank of Major and later was commissioned as Lieutenant Colonel in the Medical Reserves in 1924.

Dr. Robinson was the owner and Medical Director of the old Punton Sanitarium, 3001 Paseo, from 1910 to 1923. He then purchased the historic Dyer home at 8100 Independence Road in 1923 and established his Sanitarium at that location for the following twelve years. Lastly, he purchased the old Christian Church Hospital property at 27th and Paseo about 1935, where he was the Medical Director of the established Neurological Hospital for the remainder of his active life..

Writing in the 50th Anniversary Issue of the *Jackson County Medical Society Bulletin*, he recalled that he was acquainted with seventy-five men who had served as President of the Missouri State Medical Association. Accordingly, the community of Kansas City, as well as the State of Missouri, has lost another pioneer in the field of medicine who has made an extensive acquaintance with many medical leaders in the State of Missouri and his reputation stands as a memorial to his most faithful, diligent, and untiring efforts.

Marvin L. Bills, M.D.

Ira Hiram Lockwood
1885-1957

A Memorial

It is with considerable misgiving that I undertake to write this obituary for our friend and colleague, Ira Hiram Lockwood. I fear that my words are inadequate to express the measure of his life and achievements or the esteem of his friends and colleagues. Life began for Ira in Storm Lake, Iowa, November 29, 1885, where he obtained part of his schooling, graduating with a B.S. Degree from Buena Vista College. This College also gave him the honorary degree of Doctor of Science in 1956. From 1905 to 1907 he attended Iowa University and graduated in Medicine from General Medical College, Chicago, in 1909. There followed a few years of general practice in Lincoln, Nebraska, and then World War I. In this conflict he held the rank of Major, first as Chief of the X-ray Department of Evacuation Hospital 1 AEF and later as head of the X-ray Service 2nd Army AEF.

In 1924 he came to Kansas City to become associated with the late Dr. Edward Holman Skinner. Since then he has been Chief of Radiology at the Research Hospital and head of the Department of Radiology of Research Clinic, a venture largely accredited to him. He served as Chief of the Residency Training Program of Research, the Kansas City General Hospitals, Children's Mercy, and the Veterans Administration Hospitals of Kansas City and Wadsworth. He was also Chief Consultant in Radiology for the Veterans Administration in Missouri, Kansas, Oklahoma, and Arkansas. These were his principal positions, but in addition he himself and his teams of younger radiologists made regular circuits of some towns around Kansas City, bringing better radiology to the smaller communities.

Locally he served as President of the Kansas City Southwest Clinical Society, Jackson County Medical Society, and has been head of the Research Hospital and Research Clinic Staffs. Nationally he was a member of the Radiological Society of North America, American Roentgen Ray Society, and was an Honorary Member of the American Radium Society. He served as President of the Radiological Society of North America and Chairman of the Board of Chancellors and President of the American College of Radiology. The latter position he held at the time of his death.

Both the American College of Radiology and the Radiological Society of North America awarded him gold medals for his contributions to radiology. His interest, however, was not limited to radiology. He was always in the forefront in civic activities and was especially active in the formation of the Blue Cross-Blue Shield plans, both locally and nationally since their inception. He was one of our most active exponents of the idea that the Medical Profession itself should put good medicine within the reach of everyone by these plans. How well he and the many others who helped start these plans succeeded is attested by the present scope of the plans themselves.

Dr. Lockwood's 81 published articles and many exhibits brought him several awards, including a Certificate of Merit from the Radiological Society of North America for a scientific exhibit on Breast Radiography. He was always interested in education and many a young man owes his start in radiology to him. He was always seeking to improve the standards of medical practice and radiology especially, becoming a Diplomate of the American Board of Radiology in 1934 and serving since the inception of this Board as Trustee and later as President and Chairman of the Executive Committee. No one was more active in examining and helping the young radiologists who sought admission to the Board than he.

Sunday, July 28, 1957, he died peacefully in his sleep, surviving his charming wife Jessie about two years. His was a life endowed with ample energy and the will and the spirit to contribute greatly in the service of mankind. He will be missed from our councils and by his host of friends.

C. Edgar Virden, M.D.

Walter T. Gunn, M.D., St. Louis: Mr. Speaker, I wish to present the following resolution:

Whereas, Medicare is already the established law of the land, and is in existence in some form in all 48 states,

Whereas, It is necessary for us to propose a plan in our coming renegotiation of the contract with the Department of Defense, and

Whereas, We believe an unpublished schedule of maximum allowances will allow for a more reasonable method of handling this problem, and

Whereas, We feel that all doctors should submit their standard and usual fees for these income groups and should not attempt to increase their fees merely because of the existence of Medicare and that have available the machinery whereby special fees over and above those considered standard may be allowed in certain justifiable and unusual circumstances, and

Whereas, The Defense Department is going to negotiate a contract on this basis, therefore be it

Resolved, That this House of Delegates authorize the Missouri State Medical Association to negotiate with the Department of Defense on the basis of an unpublished maximum schedule of allowances.

The Speaker referred this resolution to the Reference Committee on Resolutions.

Robert W. Kelley, M.D., St. Louis: Mr. Speaker, the following resolution is offered in the interest of consistency:

Whereas, It is the feeling of this House of Delegates that Missouri Medical Service, Inc., should remain under the sponsorship of the Missouri State Medical Association and in order to coordinate sponsorship of all Blue Shield plans operated in the State of Missouri, therefore be it

Resolved, That Surgical Care, Inc., at Kansas City, be requested to accept sponsorship by the Missouri State Medical Association and that all matters involving basic policies or changes in basic policies be referred to the House of Delegates of the Missouri State Medical Association for consideration and approval.

Sessions were also held in the corridors.

The Speaker referred this resolution to the Reference Committee on Miscellaneous Affairs.

Charles H. Cullers, M.D., Trenton: Mr. Speaker, I wish to present the following resolution:

RESOLUTION ON VENDOR PROGRAM

Since the public law 880—"The Vendor Law" has already been passed by the Congress of the United States and is on the statutes and now in operation providing for the Federal Government to match dollar for dollar with the various states that desire to avail themselves of the benefits of said law and there appears to be a strong sentiment in the Legislature to pass an "enabling act" to appropriate funds to better medically care for the indigent people of the state, namely, old age assistance recipients, the blind, dependent children, and those otherwise completely disabled, regardless of age, we believe the said funds should be used to pay the doctors, dentists, hospitals, nursing homes, nurses for services rendered by said above named vendors and paid directly to them.

It is understood that all of the above named vendors are favorable to said legislation and will cooperate with and in the said program to better care for the said indigent people of the State of Missouri with a recommendation that proposed state legislation should include provision for the appointment of a medical advisory committee to consult with and advise the State Division of Welfare on matters affecting all phases of medical care.

A panel presented a discussion on "Cytology."

The Speaker referred this resolution to the Reference Committee on Reports of Officers.

The Speaker made assignments of time and places for Reference Committee meetings and adjournment was at 6:10 p.m.

WEDNESDAY, APRIL 16, 1958

The House of Delegates convened at 1:30 p.m., April 16, 1958, in the Crystal Room, Hotel Sheraton-Jefferson, St. Louis, with O. P. Hampton, M.D., University City, Vice Speaker, presiding.

James R. Meador, M.D., St. Louis, reported for the Committee on Credentials.

E. Royse Bohrer, M.D., Jefferson City, Secretary, read the roll call which showed that a quorum was present.

E. Royse Bohrer, M.D., Jefferson City, Secretary, read the minutes of the Sunday and Monday meetings, which on motion, duly seconded, were approved with one correction.

Louis H. Kohler, M.D., St. Louis, reported for the Nominating Committee.

REPORT OF NOMINATING COMMITTEE

For Vice Presidents: James C. Cope, M.D., Columbia; Milton T. English, M.D., Kirksville; W. O. Finney, M.D., Chaffee.

For Delegates to the American Medical Association: Durward G. Hall, M.D., Springfield, alternate, Guy N. Magness, M.D., University City; H. E. Petersen, M.D., St. Joseph, alternate, J. Loren Washburn, M.D., Versailles.

For Speaker of the House of Delegates: Oscar P. Hampton, M.D., University City. Vice Speaker, William C. Mixson, M.D., Kansas City.

There being no nominations from the floor, on motion duly seconded, these officers were declared elected.

The Secretary announced the following reports of election of Councilors: First District, Donald M. Dowell, M.D., Chillicothe; Third District, Leonard T. Furlow, M.D., St. Louis; Fifth District, Byron M. Stuart, M.D., Boonville; Seventh District, Kenneth C. Hollweg, M.D., Kansas City; Ninth District, J. H. Summers, M.D., Lebanon.

James R. McVay, Jr., M.D., Kansas City, nominated Ralph Perry, M.D., Kansas City, for President-Elect.

Upon motion and vote the Secretary was instructed to cast the unanimous ballot of the House of Delegates for Ralph Perry, M.D., Kansas City, for President-Elect. The Secretary cast the unanimous ballot of the House of Delegates for Dr. Perry for President-Elect and the Speaker declared Dr. Perry so elected.

Dr. Perry: Mr. Speaker and Members of the House of Delegates and Guests: On this occasion I want to express to you my sincere thanks and gratitude for having honored me as President-Elect of the Missouri

State Medical Association. I appreciate this honor very much and accept it in a humble fashion. I hope that I can bring sufficient ability to this position. At this time, I want to express my thanks to my good wife, without whose patience and understanding it would not have been possible for me to have continued my efforts in organized medicine.

Many dedicated men have preceded me in this position. They have been able to do the work required of them in an acceptable manner only through your help and your cooperation. I want you to extend to me the same fine spirit of cooperation that you have shown my predecessors. There are many problems facing the Association today, problems which I believe will affect the practice of medicine and the health and welfare of the people of this great state for many years to come. It is my hope and desire that through unity of opinion and dedicated effort, we can satisfactorily resolve these problems and project the Association well into the future. Gentlemen, I again thank you for this signal honor.

Dr. Ralph Perry approaches the platform after his election as President-Elect.

Dr. Perry addressed the House briefly.

The Speaker, Joseph L. Fisher, M.D., St. Joseph, took the chair.

O. B. Barger, M.D., Harrisonville, reported that the Reference Committee on Amendments to the Constitution and By-laws had no report but that two items would come up under unfinished business.

Kenneth Glover, M.D., Mount Vernon, gave the report of the Reference Committee on Resolutions.

REPORT OF THE REFERENCE COMMITTEE ON RESOLUTIONS

The Reference Committee on Resolutions met at 4:30 p.m., April 15, with all members present to consider the two resolutions presented concerning the Medicare Program. The first resolution is as follows:

The registration desk was a gathering point.

Resolved, That the Council be authorized and directed to negotiate a new Medicare contract with the Department of Defense to continue the program beyond the expiration of our present contract September 30, 1958, and recommend continuation of a published fee schedule.

The second resolution is as follows:

WHEREAS, Medicare is already the established law of the land and is in existence in some form in all 48 states, and

WHEREAS, It is necessary for us to propose a plan in our coming renegotiation of a contract with the Department of Defense, and

WHEREAS, We believe an unpublished schedule of maximum allowances will allow for a more reasonable method of handling this problem, and

WHEREAS, We feel that all doctors should submit their standard and usual fees for these income groups and should not attempt to increase their fees merely because of the existence of Medicare, but yet should have available the machinery whereby special justifiable fees over and above those considered standard may be allowed in certain circumstances, and

WHEREAS, The Defense Department is willing to negotiate a contract on this basis, therefore be it

Resolved, That this House of Delegates authorizes the Missouri State Medical Association to negotiate with the Department of Defense on the basis of an unpublished maximum schedule of allowances.

This Committee has a majority report favoring the first resolution, which recommends a continuation of the published fee schedule plan.

A minority report will be presented by Dr. Kerr.

DAVID N. KERR, M.D., St. Louis: Dr. Kerr explained his reasons for not favoring a fee schedule and presented the following minority resolution:

Resolved, That this House of Delegates authorize the Missouri State Medical Association to negotiate with the Department of Defense on the basis of an unpublished maximum schedule of allowances.

Dr. Kerr moved the adoption of this resolution and the motion was seconded.

In discussion, Dr. O. P. Hampton and Dr. J. W. Thompson spoke in favor of the minority report; Dr. E. B. Drescher and Dr. Charles T. Cullers spoke in opposition to the minority report.

On vote, the minority report was defeated by a vote of 58 to 28.

On motion of Dr. Glover, duly seconded, the majority report of the Reference Committee on Resolutions was adopted.

Dr. McVay discussed a report in the House of Delegates.

Robert W. Kelley, M.D., St. Louis: Mr. Speaker, the extensive discussion before the Reference Committee on Miscellaneous Affairs highlighted the present inequities and difficulties involving effective participation of physicians in the operation and management of Missouri Medical Service, Inc. Secondly, it demonstrated definitely that the physicians in Surgical and Medical Care, Inc., of Kansas City, have absolutely no desire to accept sponsorship by the Missouri State Medical Association and have no desire to participate in questions involving policy of the Missouri Medical Service, and physicians in that area. I would like to withdraw my resolution and so move.

Upon second, it was voted that the resolution be withdrawn.

David N. Kerr, M.D., St. Louis, requested the reopening and reconsideration of the action of the House of Delegates on April 14 regarding Missouri Medical Service. The Speaker determined that Dr. Kerr had suggested the amendment to the minority report and voted for it and granted permission. Dr. Kerr moved that the question be reopened, the motion was seconded but on vote lost by a count of 43 to 31.

Dr. and Mrs. Perry, Dr. and Mrs. Francka and Dr. Allee visit.

Paul F. Max, M.D., St. Louis, announced that since the resolution, which the Reference Committee on Miscellaneous Affairs had considered, had been withdrawn, the Committee had no report.

T. M. Macdonnell, M.D., Marshfield: In the discussion in the Reference Committee on Miscellaneous Affairs, prior to the withdrawal of Dr. Kelley's resolution, the following which I believe may still be of service was suggested: "And further, that the President of the MSMA direct the Medical Economics Committee to examine the degree to which Blue Shield organizations in Missouri are effectively meeting the public need and succeeding in making voluntary prepayment programs the successful American alternative to government intervention and compulsion.

"Also to study the policy of the Missouri Medical Service (Blue Shield) and how that policy is determined and if the members of component societies have any voice and to bring this report to the floor of the House of Delegates at its next regular session, 1959."

Dr. Neilson addressed the House of Delegates.

The Speaker pointed out that the House had declined to reopen this discussion and asked if action was desired. Dr. Macdonnell deferred to the chairman of the Committee, Dr. Max, who felt it was not the prerogative of the Committee to suggest such action.

Arthur W. Neilson, M.D., St. Louis: Through two sessions of the House of Delegates and through several committee hearings I have gradually gained the feeling that there is a current of unrest in this House. What we are seeing are not the usual bickerings of petty medical politics—which have been going on since this organization began—but differences of opinion which are evidences of conflicts in our souls over changes in our essential ideology. Physicians have two jobs, first, to give the best medical care of which we are capable to the sick, and two, to hand on to our successors a fine heritage of the act of practice of medicine. I have heard physicians state that "If money is taken from us in taxes, let's get some of it back." Is it money that we find more important than ideals? Surely, if it is money and only money that is important there must be easier ways of getting it. Gentlemen, I stem from a medical family. My father probably helped train many of you within my hearing. My sons are following me in the practice of medicine. As a father and as a physician it is my earnest hope that they may practice here in the State of Missouri the highest type of medicine. If we permit as an organized body of physicians the government of the United States to arrange things for us in health matters at a local level and if we accept money for our traditional uncompensated care of the poor sick, then we are compromised.

Eventually your sons and my sons will practice a much different sort of medicine from that which you and I have enjoyed. Missouri citizens will receive a much poorer sort of medical care and our profession will be degraded. Look about you in other countries—did you not hear Gunnar Gundersen last night? I beg of you to think well before you open Pandora's box and bring down on us any scheme that will eventually lower the standards of medical care. Let us as physicians in this state tackle the job of caring for our poor sick without compensation. Surely our legislators and the public who must foot the bills will help us if we go to them with such an unselfish plan. Let's try to do this locally and without the help of the federal government, and then let us as physicians devise ever better insurance plans to cover the great group who can afford medical care.

The Speaker read the following telegram from A. P. Rowlette, M.D., Moberly, Chairman of the Committee on Medical Economics, who had been called from the meeting because of illness in his family: "In case vendor legislation is debated on floor of the House, ask statement be read supporting position of your Medical Economics Committee which debated this for many hours over a long period of time. Three basic points are, first, this was recognized as creeping socialism so we could not endorse the program; two, since a real problem exists in medical care of aged and indigent in rural Missouri, could not condemn; three, refusal of payment by physicians fundamentally although it will be a hardship on some rural physicians, we must maintain traditional position of free care to the poor to expect preferred treatment as a profession and to allow our request to give and help administer the law, otherwise we have selfish interests."

Dr. Lake Brewer, Ridgeway, received her 50 Year Pin at the Annual Banquet.

Dr. Sewell congratulates Dr. Seabaugh on receiving his 50 Year Pin while Dr. Seabaugh's son looks on.

John P. Ferguson, M.D., Springfield, gave the report of the Reference Committee on Reports of Officers.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met at 5:00 p.m., April 15 with all members present.

The resolution which had been presented by Dr. Cullers on the vendor program was studied, along with those previously presented by Dr. Barger, Dr. Sauer and Dr. Benoit. Following considerable discussion from witnesses appearing before the Committee, the Committee wishes to present for your consideration the resolution proposed by Dr. Barger with certain deletions and insertions which had been made before the Committee itself. Mr. Speaker, I move the adoption of the following resolution:

> Whereas, Legislation will probably be introduced in the Missouri General Assembly to implement federal law by providing state matching funds for payments to persons and institutions providing various kinds of health care to certain classes of indigent citizens, and
>
> Whereas, The members of the Association have had a full opportunity to consider the implications that possible policies MSMA might adopt in regard to such vendor legislation and have apparently expressed the majority view that it would not be in the best interest of the profession or the public to oppose in blanket fashion such legislation for all classes of vendors including hospitals, nursing homes, nurses, dentists and druggists, and
>
> Whereas, Time and opportunity remain for the Association to work to keep doctors from being included in such a program if this is the wish of the profession, therefore be it
>
> *Resolved*, That the Association adopt a policy of watchful neutrality toward the legislation as a whole, and be it further
>
> *Resolved*, That physicians not be paid for their services under the vendor act, and be it further
>
> *Resolved*, That the Council be instructed to act in the best interest of the MSMA if and when enabling legislation pertaining to the vendor program is proposed in the Missouri legislature, and be it further
>
> *Resolved*, That any vendor legislation should make provision for the appointment of a medical advisory committee from the MSMA to consult with and advise the state department designated to administer such a program on all matters affecting any phase of medical care connected with the program.

The motion was duly seconded.

Paul F. Max, M.D., St. Louis, read an advertisement from *Newsweek*.

M. Pinson Neal, M.D., Columbia, moved that a substitute motion be adopted, namely, that a special committee be established to study the whole program and report back to the House of Delegates at the next Annual Session.

The motion was duly seconded.

This was discussed by Dr. Ferguson, Dr. Sauer, Dr. Glover, Dr. McVay, and Dr. Cullers.

On vote, the substitute motion lost.

The President and President-Elect pose with their wives.

Charles H. Cullers, M.D., Trenton, moved that a substitute motion be considered, that this be voted on by circularizing the membership.

The motion was seconded.

This was discussed by John A. Growdon, M.D., Kansas City, pointing out that a mail poll with a large return had been taken; and Durand Benjamin, M.D., St. Louis. On vote the substitute motion was defeated.

Dr. Francka, Dr. Sewell, Dr. Allee and Mr. O'Brien take time out for a picture.

On vote, the Committee report was adopted by a vote of 47 to 35.

Dean Sauer, M.D., St. Louis, asked to move that the House of Delegates declare whether Public Law 880 is considered a socialized medical plan or not.

This being new business, on vote, the House declined to consider it.

O. B. Barger, M.D., Harrisonville, presented the

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following amendment to the By-laws, which had lain on the table the required time:

Amend Chapter 7, Sec. 2, page 6, of the By-laws by striking out "The Committee on Conservation of Eyesight" and inserting in lieu thereof the words, "The Committee on Eye Health." Further amend Chapter 7, Sec. 2, page 8, by striking out at the beginning of the paragraph relating to the duties of the Committee on Conservation of Eyesight the following "The Committee on Conservation of Eyesight" and insert in lieu thereof the words, "The Committee on Eye Health."

On motion of Dr. Barger, duly seconded, the amendment to the By-laws was adopted.

Drs. Perry, Sewell and Francka congratulate each other

Dr. Barger, as a delegate, not as chairman of the committee, presented the following substitute to the amendment to the By-laws which had lain on the table the required time:

Junior members shall be limited to those members of component societies (1) who are serving a full-time approved internship or residency in a hospital approved by the Council on Medical Education of the A.M.A. (2) and they shall continue as junior members for the first three years subsequent to the completion of any accredited service.

On motion of Dr. Barger, duly seconded, the substitute amendment to the By-laws was adopted.

W. F. Francka, M.D., Hannibal, read the appointments to committees to fill expired terms and chairmenships, which were approved by the House of Delegates, as follows:

COMMITTEE APPOINTMENTS, 1958

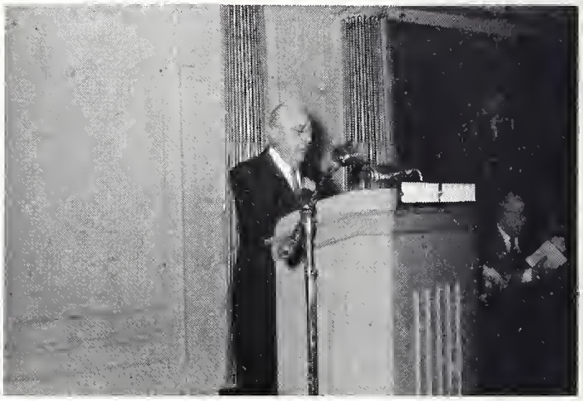
Scientific and Postgraduate Work: John Growdon, Kansas City, Chairman; James G. Janney, Jr., Clayton; Associate Members: W. Paul Maddux, Springfield; J. H. Keim, Cape Girardeau; Charles Metz, St. Louis; Wyeth Hamlin, Palmyra; William R. Richardson, Union; Robert Smith, Marceline.

Defense: C. E. Hyndman, St. Louis, Chairman; L. P. Forgrave, St. Joseph; Ronald Elkins, Springfield.

Public Policy and Public Relations: R. O. Muether, St. Louis, Chairman; W. D. Chute, Moberly; R. J. Crider, St. Charles; Rolla B. Wray, Nevada; James E. McConchie, Independence; O. B. Crawford, Springfield; H. W. Carrington, Lebanon; J. J. Bredall, Perryville; John R. Dixon, Brookfield; R. R. Lyle, Versailles; W. F. Francka, Hannibal; Ralph Perry, Kansas City.

Medical Education and Hospitals: Kenneth Glover, Mount Vernon, Chairman; George J. L. Wulff, Jr., University City; Doyle C. McCraw, Bolivar.

Cancer: M. L. Napper, Springfield, Chairman; Thomas Martin, St. Louis; Associate Members: John E. Lamy, Sedalia; Byron E. Watts, Jefferson City; Charles E. Lockhart, Springfield; John H. Modlin, Columbia; A. N. Arneson, St. Louis; E. Kip Robinson, Kansas City.



Dr. Francka announced committee appointments.

Medical Economics: A. P. Rowlette, Moberly, Chairman; John R. Forgrave, St. Joseph; Associate Members: Robert D. Duncan, Springfield; G. W. Winn, Boonville; E. D. Imes, Maryville; John Crowe, Cape Girardeau.

Mental Health: John J. O'Hearne, Kansas City, Chairman; Robert J. Mueller, St. Louis; H. V. Guhleman, Jr., Jefferson City; James N. Haddock, Webster Groves; D. R. Edwards, Sedalia; A. L. Brown, Springfield; Arnold S. Block, St. Louis; Albert Preston, Jr., Kansas City; John H. Platz, Carrollton.

Dr. Francka, Dr. Muether and Dr. Sewell discuss the meetings.

Maternal Welfare: James E. Keeler, Kansas City, Chairman; Joseph Krebs, St. Louis; Associate Members: P. V. Siegel, Smithton; H. C. Willumsen, St. Joseph; A. C. Trueblood, Jr., St. Louis; Irwin T. Craig, Joplin; J. J. Wimp, Kirksville; Forrest C. Long, Savannah; Eugene Hamilton, St. Louis; A. B. Sinclair, Kansas City.

Infant and Child Care: D. B. Landau, Hannibal, Chairman; H. E. Wachter, St. Joseph; R. J. LaDriere, St. Louis; Guy N. Magness, University City; Leonard L. Davis, Jr., Mexico; James J. Pascoe, Nevada; E. J. Schwartz, Springfield; J. N. Wiles, West Plains; James A. Kinder, Cape Girardeau; Gerald E. Hughes, Kansas City.

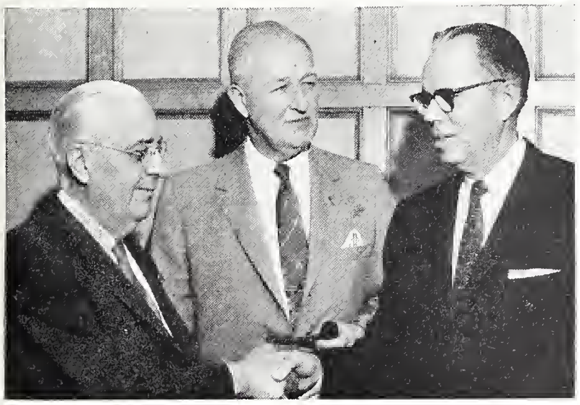
The Woman's Auxiliary had a buffet dinner and entertainment on Sunday evening.

Health and Public Instruction: John R. McDaniel, St. Joseph, Chairman; J. Earl Smith, St. Louis.

Constitution and By-laws: W. A. Bloom, Fayette, Chairman; W. L. Allee, Eldon; P. W. Jennings, Canton.

Fractures: R. E. Funsch, University City, Chairman; Associate Members: William Francis, Springfield; B. L. Murphy, Hannibal; Otis E. James, Kansas City; Glenn L. McElroy, Columbia.

Conservation of Eyesight: T. E. Sanders, St. Louis, Chairman; H. B. Ivy, Springfield; Associate Members: Dick H. Underwood, Kansas City; Michael F. Pernoud, St. Louis; D. E. Eggleston, Macon; W. L. Post, Joplin; Robert Minton, St. Joseph; W. J. Smith, Hannibal.



Following elections, the president, Speaker of the House and President-Elect converse.

Control of Venereal Disease: Edwin M. Powell, Springfield, Chairman; E. M. Cannon, St. Louis; A. W. Neilson, St. Louis.

Industrial Health: H. M. Roebber, Bonne Terre, Chairman; Vencel W. Hollo, St. Louis; William H. Duncan, Kansas City; Associate Member: James W. Clawson, Springfield.

Diabetes: H. E. Oppenheimer, Clayton, Chairman; J. Bruce Lemmon, Jr., Springfield; H. M. Gilkey, Kansas City; Associate Members: Wm. H. Olmsted, St. Louis; Robert E. Koch, Clayton; Ralph Casford, Kansas City; John H. Walterschied, Hannibal.

Anesthesiology: O. T. Blanke, Joplin, Chairman; Russell Sheldon, Kansas City.

Hospital and Professional Relations: Hollis Allen, St. Louis, Chairman; W. S. Sewell, Springfield; Associate Member: W. F. Francka, Hannibal.

Laboratory Medicine: Victor B. Buhler, Kansas City, Chairman; Angelo Lapi, Kansas City. Associate Member: Hollis N. Allen, St. Louis.

Physical Medicine and Rehabilitation: D. Elliott O'Reilly, St. Louis, Chairman; F. O. Tietjen, Jefferson City.

Civil Defense: William C. Allen, Glasgow, Chairman; H. D. Steinbeck, Union; Carroll C. Hungate, Kansas City; A. S. Bristow, Princeton; John Forgrave, St. Joseph; J. M. Canella, Hannibal; Curtis H. Lohr, Clayton; Carl D. Siegel, Sedalia; R. Ned White, Springfield; George E. Thoma, St. Louis; George L. Watkins, Farmington; John A. Griffith, Jr., Kansas City.

Dr. and Mrs. Summers and Mrs. Wells.

Tuberculosis: F. E. MacInnis, Kansas City, Chairman; Paul Murphy, St. Louis; Lawrence E. Wood, Kansas City; Joseph L. Lucido, St. Louis; Walter C. Gray, St. Louis; David N. Kerr, St. Louis; Glenn O. Turner, Springfield.

Study of Cardiac Disease: Earl L. Loyd, Jefferson City, Chairman; E. Lee Shrader, St. Louis; W. I. Park, Springfield; E. J. McIntire, Carthage; A. M. Estes, Cape Girardeau; G. R. Hudson, Kirksville; W. J. Gillespie, St. Louis; C. A. Potter, Jr., St. Joseph; E. E. Glenn, Springfield; Martin J. Mueller, Kansas City.

Alcoholism: R. E. Duncan, Kansas City, Chairman; S. D. Smith, Columbia; Joseph B. Kendis, St. Louis; George W. Forman, St. Joseph.

Rural Medical Service: A. E. Spelman, Smithville, Chairman; W. J. Shaw, Fayette; B. J. Bass, Salem; Jack Pearl, St. Clair; Charles H. Lewellen, Louisiana;

Investigator

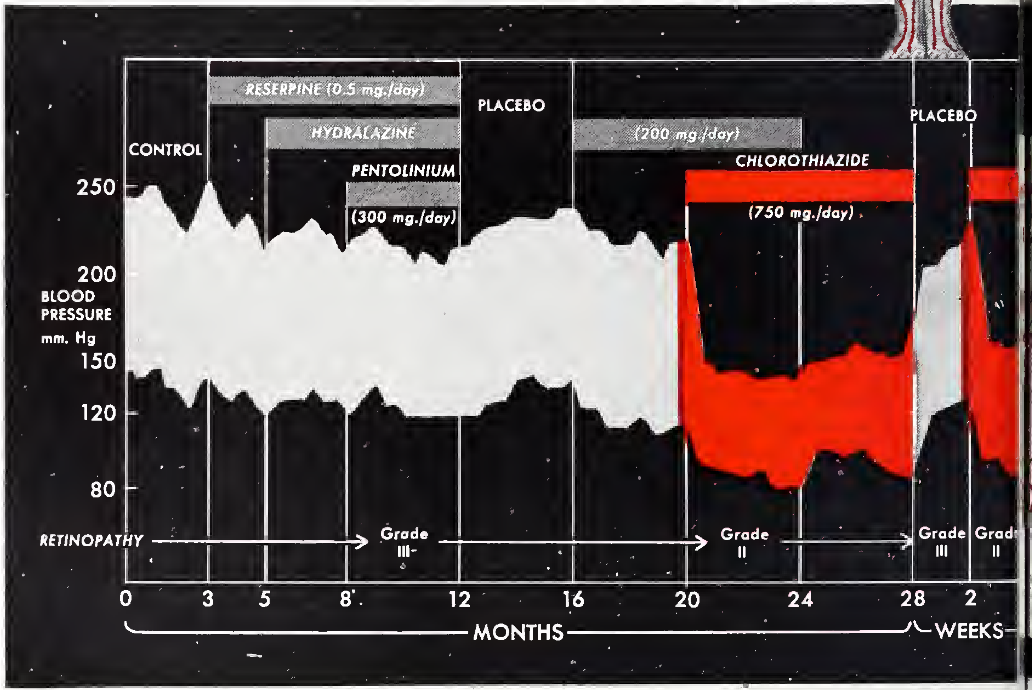
after investigator repo

Wilkins, R. W.: New England J. Med. **257**:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."

Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166**:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension,"
Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1

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effectiveness of 'DIURIL'
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INITIATE THERAPY WITH 'DIURIL'. 'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

ADJUST DOSAGE OF OTHER AGENTS. The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be immediately reduced by as much as 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

ADJUST DOSAGE OF ALL MEDICATION. The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

SUPPLIED: 250 mg. and 500 mg. scored tablets 'DIURIL' (chlorothiazide); bottles of 100 and 1,000.

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oth, more trouble-free management of hypertension with 'DIURIL'

New officers took the oath of office.

C. A. McBurney, Slater; Jack Mullen, Bonne Terre; A. J. C. McCallum, Aurora; Chas. Lichty, Shelbina.

American Medical Education Foundation: James P. Murphy, St. Louis, Chairman; Hugh E. Stephenson, Columbia; Donald F. Gose, Springfield; T. Reid Jones, Kansas City; H. E. Petersen, St. Joseph.

The Speaker installed the President, the President-Elect, the Vice Presidents, the A.M.A. Delegates and alternates, the Councilors, and Speaker and Vice Speaker of the Association.

On motion of Paul F. Max, M.D., St. Louis, a rising vote of thanks was given the retiring Speaker of the House of Delegates, Joseph L. Fisher, M.D., St. Louis, who had served three terms.

The Speaker: On behalf of the House of Delegates, I wish to thank Dr. Muether and Dr. Neilson and the St. Louis City and St. Louis County delegations and the women of the Auxiliary for their hospitality and courtesy shown the delegation at this 100th Annual Session.

A standing vote of thanks was given.

John A. Growdon, M.D., Kansas City, invited the Association to meet in Kansas City in 1959.

Upon motion, duly seconded, the invitation was accepted.

Upon motion, duly seconded, the House of Delegates adjourned at 3:10 p.m.

Dr. Gose and Dr. Brown were among the cast from Greene County Medical Society which presented "Your Medical Hit Parade for 1958" at the banquet.

TAKE A NEW LOOK AT FOOD ALLERGENS* TAKE A LOOK AT NEW DIMETANE

DIMETANE Extentabs (12 mg. each, coated) provide antihistamine effects daylong or nightlong for 10-12 hours. Tablets (4 mg. each, scored) or pleasant-tasting Elixir (2 mg./5 cc.) may be prescribed t.i.d. or q.i.d., or as supplementary dosage to Extentabs in acute allergic situations. A. H. ROBINS CO., INC., Richmond 20, Virginia. Ethical Pharmaceuticals of Merit Since 1878.

*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

REGISTRATION AT THE ONE HUNDREDTH ANNUAL SESSION

First Councilor District—37

Allen, E. W., Carrollton
Ames, William H., St. Joseph
Bauman, H. C., Maryville
Benson, Scott C., St. Joseph
Bohnsack, R. W., Brookfield
Brewer, Lake, Ridgeway
Carpenter, Wallace, Rock Port
Conrad, Joseph A., Chillicothe
Cullers, Charles H., Trenton
Dixon, John R., Brookfield
Dunham, R. H., North Kansas City
Dunshee, R. E., Maryville
Fisher, J. L., St. Joseph
Forgrave, Paul, St. Joseph
Gary, George, Marceline
Grace, Charles M., Chillicothe
Hawkins, G. W., Salisbury
Herman, Allen I., St. Joseph
Ide, Lucien W., St. Joseph
Imes, E. D., Maryville
Knox, Earl R., Kansas City
Long, Forrest C., Savannah
McCracken, S. R., Excelsior Springs
Mabrey, J. P., Plattsburg
Matteson, Frank B., Grant City
Mothershead, J. L., St. Joseph
Nibbe, Albert F., Bethany
Petersen, H. E., St. Joseph
Platz, John H., Carrollton
Potter, T. E., St. Joseph
Riddell, Richard V., St. Joseph
Robinson, John A., Edgerton
Rost, William B., St. Joseph
Smith, Robert W., Marceline
Spelman, Arch, Smithville
Sportsman, W. L., Kansas City
Willumsen, Henry C., St. Joseph

Second Councilor District—23

Barnett, F. A., Paris
Canella, J. M., Hannibal
Collins, Gretchen D., Macon
Davis, Landis Y., Canton
Dreyer, Philip A., Huntsville
Eggleston, D. E., Macon
Ellis, Sam T., Hannibal
English, Milton T., Jr., Kirksville
Fleming, Thomas S., Moberly
Francka, W. F., Hannibal
Freeman, Spencer L., Kirksville
Jennings, P. W., Canton
Kibbe, J. H., Monroe City
Landau, Daniel B., Hannibal
Lanning, Robert J., Hannibal
Lewellen, Charles H., Louisiana
Martin, W. Joe, Louisiana
Murphy, B. L., Hannibal
Rice, Grover C., Brunswick
Rowlette, A. P., Moberly
Szymanski, S., Moberly
Tarvydas, Francis, Edina
Wimp, J. J., Kirksville

Third Councilor District—229

Agress, Harry, St. Louis
Allen, Hollis N., St. Louis
Allen, Henry C., St. Louis
Austin, Martin G., St. Louis
Ayars, T. R., St. Louis
Bailey, Drennan, St. Louis
Banton, William C., II, St. Louis
Bartlett, Robert W., St. Louis
Bartlett, Willard, St. Louis
Bassett, R. B., St. Louis
Baumgarten, Walter, St. Louis
Becker, Edward J., St. Louis
Benjamin, Durand, St. Louis
Berg, Ralph, St. Louis
Berry, John W., Clayton
Bilsky, Nathan, St. Louis
Blache, J. Owen, St. Louis
Boemer, L. C., St. Louis
Bonfanti, Albert L., St. Louis
Bortnick, Mitchel L., St. Louis
Bowerman, H. H., St. Louis
Brennan, Robert V., Kirkwood
Brodeur, Armand E., Kirkwood
Broun, Goronwy O., St. Louis
Brown, James Barrett, St. Louis
Burke, R. J., St. Louis
Burford, C. E., St. Louis
Burford, E. H., St. Louis
Burst, Donald O., St. Louis
Byrne, John E., St. Louis
Calkins, Delevan, St. Louis
Campos, F. T., St. Louis
Cannon, Edward M., St. Louis
Cassel, Melvin A., St. Louis
Cherre, Anthony J., St. Louis
Cooper, T. J., St. Louis
Dalton, A. R., St. Louis
Devine, John B., St. Louis
Deyton, John W., Webster Groves
Diehr, A. H., St. Louis
Dorsett, E. Lee, St. Louis
Doubek, John C., Jr., Kirkwood
Dunham, Richard B., St. Louis
Eades, D. W., St. Louis
Earp, Ralph K., St. Louis
Eberle, John P., St. Louis
Edwards, Joseph C., St. Louis
Engleman, Reinhold, St. Louis
Ernst, Edwin C., St. Louis
Feldman, David, St. Louis
Finnegan, F. R., St. Louis
Fitzgerald, Leo P., University City
Ford, Lee T., St. Louis
Forsen, James A., St. Louis
Forti, John J., St. Louis
Foster, Howard M., St. Louis
Fox, Robert E., St. Louis
Franklin, Max S., St. Louis
Freeman, David M., University City
Freund, Samuel J., St. Louis
Fries, Armand D., St. Louis
Funsch, Robert E., St. Louis
Furlow, L. T., St. Louis
Gafney, George T., St. Louis
Galbraith, Charles J., Webster Groves
Gilden, Jerome J., St. Louis
Gillespie, William, St. Louis
Glaser, Martin J., St. Louis
Grogan, F. M., St. Louis
Grueb, P. M., St. Louis
Guccione, Joseph B., St. Louis
Gunn, Walter T., St. Louis
Haffner, Heinz, St. Louis

In a recent 140-patient study[1] DIMETANE gave “more relief or was superior to other antihistamines,” in 63, or 45% of a group manifesting a variety of allergic conditions. Gave good to excellent results in 87%. Was well tolerated in 92%. Only 11 patients (8%) experienced any side reactions and 5 of these could not tolerate any antihistamines.

Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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Hagebusch, O. E., St. Louis
Hammond, John J., St. Louis
Hanlon, C. Rollins, St. Louis
Harell, Alex, St. Louis
Hawkins, George L., Webster Groves
Hamilton, E. G., St. Louis
Harmann, M. F., St. Louis
Hansel, French K., St. Louis
Harting, Hugh R., St. Louis
Hartwig, John A., St. Louis
Hewitt, Walter R., University City
Hollo, Vencel W., St. Louis
Hobart, Carl A., St. Louis
Henschel, Eugene V., St. Louis
Holdenried, W. E., St. Louis
Hutton, J. Lewis, St. Louis
Izmirlian, Grant I., Webster Groves
Janney, J. G., St. Louis
Jensen, Joshua E., St. Louis
Jones, O. S., St. Louis
Katz, Samuel D., St. Louis
Kelley, Robert W., St. Louis
Keller, J. M., St. Louis
Kerr, David N., Clayton
Keyes, E. Lawrence, St. Louis
King, James P., St. Louis
King, John V., Webster Groves
Kinsella, Ralph, St. Louis
Knight, William A., Jr., St. Louis
Kirchner, Walter C. G., St. Louis
Kleinschmidt, Clinton, St. Louis
Klym, Nicholas, St. Louis
Kneal, Ellsworth, St. Louis
Koenig, George H., Gulfport, Fla.
Kohler, Louis H., St. Louis
Kouri, Martin F., St. Louis
Koutsoumpas, W. V., St. Louis
Kountz, William B., St. Louis
Krebs, J. M., St. Louis
Koon, Bernard T., St. Louis
Kurz, R. F., St. Louis
Ladd, Charles, St. Louis
Lansche, E. A., Pine Lawn
Lattinville, Henry E., St. Louis
Lawrence, John V., St. Louis
Lawton, John T., St. Louis
Lieb, Francis X., St. Louis
Levitt, Joseph, St. Louis
Lewis, J. Eugene, St. Louis
Little, Monroe, St. Louis
Littman, Lewis, Clayton
Loeffel, Ellen, St. Louis
Lonsway, Maurice, St. Louis
Luedde, Philip S., St. Louis
Luten, Drew W., St. Louis
McLean, Harry A., St. Louis
McAdam, C. R., St. Louis
McDowell, Frank, St. Louis
McLelland, Richard I., St. Louis
Mack, Robert, St. Louis
Macko, J. R., St. Louis
Macon, William L., Jr., St. Louis
Maher, Thomas F., Glendale
Malles, A. Conrad, St. Louis
Mannis, Ben G., St. Louis
Max, Paul F., St. Louis
Melick, W. F., St. Louis
Merenda, Sam J., St. Louis
Merklin, Anton F., St. Louis
Meyer, Curtis A., St. Louis
Mezera, R. A., Webster Groves
Milster, Clyde R., St. Louis
Morris, Harry E., St. Louis
Morris, Mary, St. Louis
Mountjoy, Grace A., St. Louis
Mueller, Robert, St. Louis
Muether, R. O., St. Louis
Murphy, Paul, St. Louis
Neilson, Arthur W., Clayton
Newman, Percy, St. Louis
Odell, Richard T., St. Louis
O'Donnell, Joseph O., St. Louis
Olmsted, William H., St. Louis
Oppenheimer, H. E., Clayton
Paletta, F. X., St. Louis
Payne, Meredith J., St. Louis
Peden, Joseph C., St. Louis
Pfeifer, Oliver C., St. Louis
Plag, A. F., St. Louis
Rainer, Robert, St. Louis
Reilly, L. J., St. Louis
Rendleman, George, St. Louis
Ries, Douglas A., Clayton
Riordan, L. M., St. Louis
Ritter, Hubert A., St. Louis
Rosenfeld, Henry, St. Louis
Ryan, Robert E., St. Louis
Sauer, Dean, St. Louis
Sherard, J. D., St. Louis
Schmitz, Edgar F., Ferguson
Sciortino, John S., St. Louis
Schaerer, J. P., St. Louis
Schnoebelen, P. C., St. Louis
Schuchat, W. Louis, St. Louis
Scott, Wendell G., St. Louis
Sewing, Arthur H., St. Louis
Sexton, Daniel L., St. Louis
Shackleford, H. H., St. Louis
Shutt, Cleveland H., St. Louis
Signorelli, A. J., St. Louis
Simon, David L., St. Louis
Simon, Jerome I., St. Louis
Smith, Frank J., St. Louis
Sterkel, Richard L., St. Louis
Stolar, Jacob, St. Louis
Sudholt, Alfred F., Jr., Ferguson
Sullivan, Clement J., University City
Thoma, George E., St. Louis
Thompson, J. William, St. Louis
Tibbs, William A., Jr., St. Louis
Tjoflat, O. E., St. Louis
Tucker, Eugene F., St. Louis
Vaughn, A. N., St. Louis
Vohs, Carl F., St. Louis
Vermillion, C. O., Webster Groves
Von Kaenel, Joseph E., St. Louis
Wacker, Leo. L., St. Louis
Wall, Emmett D., St. Louis
Weir, Don C., St. Louis
Weiss, Richard S., St. Louis
Weyerich, L. F., St. Louis
Wirthlin, Edward H., St. Louis
Willman, V. L., St. Louis
Wotawa, William J., St. Louis
Zeinert, Oliver B., University City
Zingale, Frank G., St. Louis

Fourth Councilor District—101

Bailey, William H., St. Louis
Beam, Sim F., St. Louis
Berry, Paul T., Troy
Brenner, Paul A., Owensville
Brown, Eugene R., University City
Coldwater, K. B., St. Louis
Costrino, John J., St. Louis
Creech, Joseph C., Troy
Damron, E. O., Elsberry
Davis, Edgar W., St. Louis
Diehr, Maurice A., St. Louis
Dill, Foster A., Maplewood
Drescher, Emmett B., University City
Ecker, D. B., Pacific
Ellison, Leroy E., Maplewood
Falk, O. P. J., St. Louis
Fallet, Charles E., DeSoto
Finkel, Barney W., St. Louis

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". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

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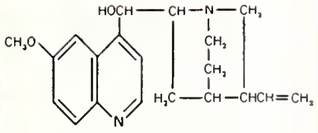

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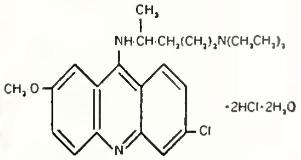

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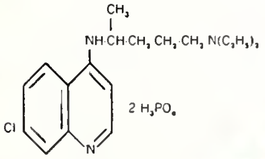

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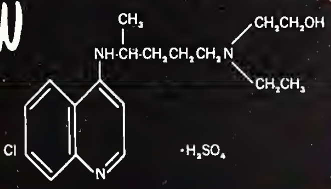

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. Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
eodore: Arch. Dermat. 73:572, June, 1956.

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Kingsland, Robert C., Clayton
Kinsella, E. D., St. Louis
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Larkin, Rosemary, St. Louis
Leslie, C. H., Kirkwood
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Andersen, E. J. T., Montgomery City
Bloom, W. A., Fayette
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Burns, Thomas W., Columbia
Cassel, William J., Jr., Jefferson City
Chamberlain, G. L., Boonville
Clark, Kendall A., Jefferson City
Cope, James C., Columbia
Davis, Leonard L., Jr., Mexico
Dorris, R. P., Jefferson City
Dwyer, Thomas L., Mexico
Epple, Lawrence K., Mexico
Flynn, Joseph E., Columbia
Fulks, Richard B., California
Garner, L. M., Jefferson City
Gay, L. P., Jefferson City
Hall, John R., Ashland
Jolly, Benjamin N., Mexico
Leeper, Claude K., Columbia
Matthews, John I., Jefferson City
Martt, Jack M., Columbia
Meier, Francis X., Jefferson City
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Neal, M. Pinson, Columbia
Overholser, M. D., Columbia
Perna, Vincent P., Columbia
Pullen, Roscoe L., Columbia
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Stephan, A. P., Jefferson City
Stephenson, Hugh E., Jr., Columbia
Stewart, William J., Columbia
Stuart, B. M., Boonville
Summers, Joseph S., Jr., Jefferson City
Stine, Dan G., Columbia
Ward, Robert L., Centralia
Washburn, J. L., Versailles
Watts, Byron E., Jefferson City
Winn, G. W., Boonville

Sixth Councilor District—28

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Allen, Claude J., Rich Hill
Allen, William H., Nevada
Barger, O. B., Harrisonville
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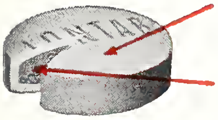

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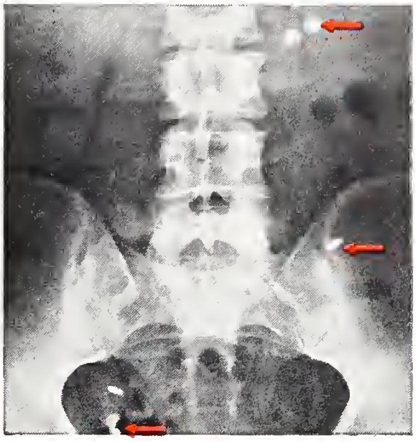
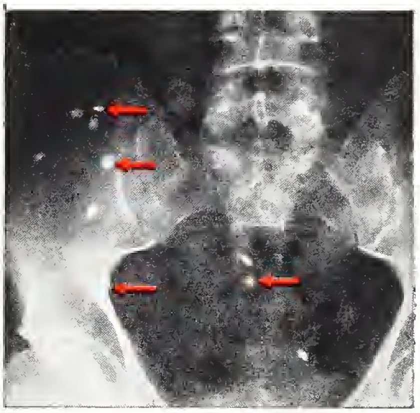
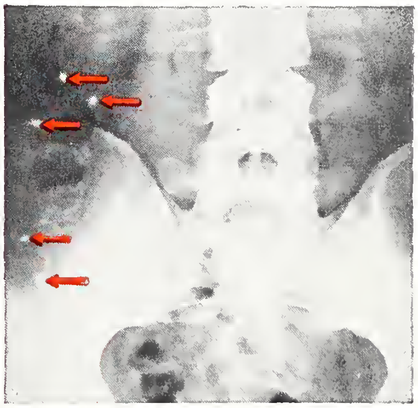
2 hours Lontabs are in the stomach and small bowel. Release of core substance is well under way.



4 hours Lontabs are in the ileum and cecum as core has steadily eroded.



8 hours Lontabs are still visible as substance of core continues to be released.



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Hansen, A. L., Butler
Haynes, Robert C., Marshall
Jones, Ralph H., Marshall
Kelling, Jordan, Waverly
Lederer, Charles M., Warrensburg
Lowe, A. L., Sedalia
McCorkle, E. Lee, Marshall
Maddox, A. R., Sedalia
Magee, R. L., El Dorado Springs
Maxson, T. Reed, Warrensburg
Pearse, Roy W., Jr., Nevada
Stauffacher, C. Gordon, Sedalia
Stewart, Robert H., Sedalia
Thurber, Claude M., Windsor
Tracy, H. A., Belton
Walker, Hugh B., Clinton
Wray, Rolla B., Nevada

Seventh Councilor District—52

Allen, William B., Kansas City
Anderson, Raymond B., Kansas City
Bennett, James D., Kansas City
Benoit, Hector W., Jr., Kansas City
Berry, Maxwell G., Kansas City
Bowser, John F., Kansas City
Buhler, Victor B., Kansas City
Byers, Philip L., Kansas City
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Casford, Ralph S., Kansas City
Cummins, Walter, Kansas City
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Decker, Albert I., Kansas City
Duncan, Ralph E., Kansas City
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Hollweg, Kenneth C., Kansas City
Houck, George, Kansas City
Hunt, Claude J., Kansas City
Jansen, Robert, Kansas City
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Kyger, Fred, Kansas City
Lapi, Angelo, Kansas City
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McFarland, Donald, Kansas City
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MacInnis, Florence E., Kansas City
Mosser, Robert S., Kansas City
Multhauf, C. J., Kansas City
Murphy, Robert J., Kansas City
Perry, Ralph, Kansas City
Shelden, Russell D., Kansas City
Summers, C. B., Kansas City
Wakefield, F. H., Kansas City
Webster, Joseph G., Kansas City
Werner, F. C., Kansas City
Wilkinson, E. A., Kansas City
Williams, Joseph C., Kansas City

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Ashley, T. E., Springfield
Beers, E. G., Seymour
Bonebrake, M. D., Springfield
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Brasher, C. A., Mt. Vernon
Brown, James T., Springfield
Burney, W. S., Miller
Callaway, Guy D., Jr., Springfield
Capetti, A. P., Aurora
Cohnberg, R. E., Monett
Coller, Fred, Springfield
Conrad. R. C., Springfield
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Dietz, M. Wendell, Springfield
Dills, Joseph N., Springfield
Donley, R. R., Monett
Douglas, John, Joplin
H'Doubler, F. T., Jr., Springfield
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Ferguson, John P., Springfield
Ferrell, T. E., Springfield
Fessenden, E. M., Springfield
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Gose, Donald F., Springfield
Graves, A. G., Mt. Vernon
Griffin, Evelyn, Buffalo
Hall, Durwood G., Springfield
Hobbs, George H., Mt. Vernon
Hogeboom, George W., Springfield
Johnson, William F., Springfield
Knabb, Kenneth E., Springfield
Lemmon, G. B., Jr., Springfield
Lockhart, Charles E., Springfield
Lurie, Hal, Springfield
McAlhany, H. J., Springfield
McNew, William T., Carthage
Macdonnell, T. M., Marshfield
Maddux, W. P., Springfield
Maher, Robert W., Springfield
Morton, Paul C., Springfield
Moseley, F. Thomas, Springfield
Napper, Marvin L., Springfield
Newman, Mary, Cassville
Peterson, Stanley S., Springfield
Polk, John W., Springfield
Prater, B. G., Springfield
Rosen, Max, Springfield
Royce, J. J., Noel
Schulte. G. A., Joplin
Schwartz, E. J., Springfield
Scorse, S. W., Joplin
Sewell, Walter S., Springfield
Silsby, Don J., Springfield
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Tillman, W. W., Springfield
Tsang, John L. K., Springfield
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Upshaw, Paul O., Springfield
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Wakeman, J. Newton, Springfield
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Whitten, M. Foster, Carthage
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Wilson, Daniel R., Mt. Vernon
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Wood, George H., Carthage
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Yancey, Daniel L., Springfield

Ninth Councilor District—15

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Bass, B. J., Salem
Breuer, R. E., Rolla
Butts, James D., Rolla
Callihan, C. F., West Plains
Carrington, H. W., Lebanon
Hammler, Christiana V., St. James
Lytle, William R., Rolla
Miller, Harold, Willow Springs
Russell, Barbara E., Rolla
Stricker, E. A., St. James
Summers, J. H., Lebanon
Underwood, M. K., Rolla
Walker, A. T., Thayer
Wiles, Jack N., West Plains

Tenth Councilor District—39

Appleberry, C. H., Flat River
Biggs, Fred J., Poplar Bluff
Bredall, Jerome J., Perryville
Bull, Ben M., Ironton
Campbell, Edward D., Cape Girardeau
Comeau, Richard, Dexter
Cook, O. W., Caruthersville
Crowe, John T., Cape Girardeau
English, W. D., Cardwell
Estes, Albert M., Cape Girardeau
Fairchild, J. F., Perryville
Finney, W. O., Chaffee
Fuzzell, Jameso, Kennett
Gernstetter, S. L., Poplar Bluff
Grayson, R. R., St. Louis
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Haw, Marvin T., Jr., Bonne Terre
Harland, R. E., Ironton
Kinder, James A., Cape Girardeau
Lutkewitte, Joseph F., St. Marys
McClure, T. C., Sikeston
McDermott, A. E., Perryville
McGinty, Charles P., Cape Girardeau
Michaelis, Charles E., Fredericktown
Ramos, Raoul L., St. Louis
Reeder, Charles C., New Madrid
Reynolds, G. A., Cape Girardeau
Ritter, Raymond A., Cape Girardeau
Roebber, H. M., Bonne Terre
Seabaugh, O. L., Cape Girardeau
Seabaugh, William O. L., Cape Girardeau
Shirey, A. G., Hayti
Shoss, Milton, Cape Girardeau
Spence, E. L., Kennett
Taylor, Van W., Bonne Terre
Tribble, Robert E., Chaffee
Trolinger, J. H., Jackson
Tygett, Glenn J., Cape Girardeau
Watkins, George L., Farmington

Guest Speakers—9

Allbritten, Frank F., Jr., Kansas City, Mo.
Dickie, Helen A., Madison, Wisconson
Gundersen, Gunnar, La-Crosse, Wisconsin
Jordan, Robert A., Kansas City, Kansas
McCullagh, Ernest Perry, Cleveland, Ohio
Noer, Rudolf J., Louisville, Kentucky
Robinson, Paul I., Washington, D. C.
Trum, Bernard F., Washington, D. C.
Wilkens, Robert, Boston, Mass.

Guest Physicians—70

Ash, Charles J., St. Louis
Auer, Arthur I., Brentwood
Banton, Milagros R., St. Louis
Benmiloud, M., Bristol, Conn.
Blossom, Robert A., Ventura, Calif.
Brandabur, John J., St. Louis
Bringas, Mercedes B., St. Louis
Bunch, E. A., St. Louis
Burmeister, R. W., St. Louis
Calman, Carl H., University City
Candelario, William I., St. Louis
Chen, Anella, Sister, St. Louis
Dobrowski, Stanley L., Maple Heights, Ohio
Dressel, Robert F., Evergreen Park, Ill.
Dyer, David P., Grand Rapids, Mich.
Edwards, John P., Haddenfield, N. J.
Esslinger, John O., Birmingham, Mich.
Estrada, C. DeLeon, St. Louis
Estrada, Jesus I., St. Louis
Fallon, M., E. St. Louis, Ill.
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Kozlowski, Albert, St. Louis
Lesnek, W., St. Louis
Lewin, Walter, St. Louis
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McNally, John, St. Louis
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Ready, James H., St. Louis
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Schmitt, Eugene J., Xenia, Ohio
Schultz, Joseph, Cleveland, Ohio
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Seifert, M. H., Sr., Excelsior Springs, Mo.
Sevastianos, Aristides E., St. Louis
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Stamp, Warren, St. Louis
Stewart, B. G., Bakersfield, Calif.
Stoneman, William, St. Louis
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Tahernia, Amircyrus, East St. Louis, Ill.
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Williams, Maybelle P., Alton, Ill.
Yang, Jae, St. Louis
Zafiracopoulos, Dan, St. Louis
Zettler, Richard L., Kamms, Ohio

There were registered 208 exhibitors, 172 Woman's Auxiliary, 100 medical technicians, 8 students, 716 physicians and 16 guests. Total registration 1,220.

BOOKS RECEIVED

CHRONLC ILLNESS IN THE UNITED STATES, Volume 1. PREVENTION OF ILLNESS, by Commission on Chronic Illness Published for The Commonwealth Fund by Harvard University Press, Cambridge, Massachusetts, 1957. Price $6.00.

PSYCHOPATHIC PERSONALITIES, by Harold Palmer, M.D. Philosophical Library, New York, 1957. Price $4.75.

PSYCHOSOMATIC MEDICINE, A CLINICAL STUDY OF PSYCHOPHYSIOLOGIC REACTIONS, by Edward Weiss, M.D., Professor of Clinical Medicine, Temple University Medical Center, Philadelphia, and O. Spurgeon English, M.D., Professor and Head of Department of Psychiatry, Temple University Medical Center, Philadelphia. Third Edition. W. B. Saunders Company, Philadelphia-London, 1957. Price $10.50.

FROM STERILITY TO FERTILITY, A GUIDE TO THE CAUSES AND CURE OF CHILDLESSNESS, by Elliott E. Philipp, M.D. Philosophical Library Publishers, New York, N. Y., 1957. Price $4.75.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

Missouri Academy of General Practice, 10th Annual Assembly, Chase Hotel, St. Louis, October 18-19, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.
Clay County Medical Society—last Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Tuesday of each month.
Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Holt County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets third Friday of each month.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—third Thursday of each month.
Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.
Pemiscot County Medical Society—third Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday each month September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second and fourth Wednesday of each month.
St. Louis Medical Society—third Tuesday of each month October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

Organization

AMERICAN MEDICAL ASSOCIATION

President, Gunnar Gundersen, LaCrosse, Wis.
Clinical Session, Minneapolis, December 2-5, 1958.
Annual Session, Atlantic City, June 8-12, 1959.

MISSOURI STATE MEDICAL ASSOCIATION

101th Annual Session, Kansas City
April 5-8, 1959

President, W. F. Francka, Hannibal.
President-Elect, Ralph Perry, Kansas City.
Vice Presidents, James C. Cope, Columbia; M. T. English, Kirksville; W. O. Finney, Chaffee.
Treasurer, R. O. Muether, St. Louis.
Secretary, J. I. Matthews, Jefferson City.
Editor, Charles R. Doyle, St. Louis.
Speaker of the House of Delegates, O. P. Hampton, University City; Vice Speaker, William C. Mixson, Kansas City.
Field Secretary, Ray McIntyre, St. Louis.
Assistant Editor, Helen Penn, St. Louis.
Executive Assistant, Bill Logan, St. Louis.
Executive Secretary, Tom R. O'Brien, 623 Missouri Theatre Bldg., 634 N. Grand Blvd., St. Louis 3.

Delegates to the American Medical Association

Joseph C. Peden, Sr., St. Louis; alternate, Dean Sauer, St. Louis, 1958-1960. F. L. Feierabend, Kansas City; alternate, Rolla B. Wray, Nevada, 1958-1960. Durward G. Hall, Springfield; alternate, Guy N. Magness, University City, 1959-1961. H. E. Petersen, St. Joseph; alternate, J. Loren Washburn, Versailles, 1959-1961.

Standing Committees

Scientific and Postgraduate Work—John A. Growdon, Kansas City, Chairman (1961); James G. Janney, Jr., St. Louis (1961); John 1. Matthews, Jefferson City (1960); Hector W. Benoit, Kansas City (1960); M. Pinson Neal, Columbia (1959). **Associate Members**—W. Paul Maddux, Springfield; J. H. Keim, Cape Girardeau; Charles O. Metz, St. Louis; Wyeth Hamlin, Hannibal; William R. Richardson, Union; Robert Smith, Marceline.

Defense—C. E. Hyndman, St. Louis, Chairman (1960); L. P. Forgrave, St. Joseph (1961); Ronald Elkins, Springfield (1961); Roland S. Kieffer, St. Louis (1959); Joseph G. Webster, Kansas City (1959).

Public Policy and Public Relations—R. O. Muether, St. Louis, Chairman; W. D. Chute, Moberly; R. J. Crider, St. Charles; Rolla B. Wray, Nevada; James E. McConchie, Independence; O. B. Crawford, Springfield; H. W. Carrington, Lebanon; J. J. Bredall, Perryville; John R. Dixon, Brookfield; R. R. Lyle, Versailles.

Medical Education and Hospitals—Kenneth Glover, Mount Vernon, Chairman (1959); George J. L. Wulff, Jr., University City (1961); Doyle C. McCraw, Bolivar (1961); Ralph R. Coffey, Kansas City (1960); Harry K. Purcell, St. Louis (1959).

Cancer—Marvin L. Napper, Springfield, Chairman (1961); Thomas M. Martin, St. Louis (1961); Joseph L. Fisher, St. Joseph (1960); George A. Carroll, St. Louis (1959); George O. Miles, Kansas City (1959). **Associate Members**—John E. Lamy, Sedalia; Bryon E. Watts, Jefferson City; Charles E. Lockhart, Springfield; John J. Modlin, Columbia; A. N. Arneson, St. Louis; E. Kip Robinson, Kansas City.

Medical Economics—A. P. Rowlette, Moberly, Chairman (1961); John R. Forgrave, St. Joseph (1961); A. B. Smith, Kansas City (1960); R. E. Breuer, Newburg (1960); George L. Hawkins, St. Louis (1959). **Associate Members**—Robert D. Duncan, Springfield; G. W. Winn, Boonville; E. D. Imes, Maryville; John T. Crowe, Cape Girardeau.

Mental Health—John J. O'Hearne, Kansas City, Chairman; Robert J. Mueller, St. Louis; H. V. Guhleman, Jr., Jefferson City; James N. Haddock, Webster Groves; D. R. Edwards, Sedalia; A. L. Brown, Springfield; Arnold S. Block, St. Louis; Albert Preston, Jr., Kansas City; John H. Platz, Carrollton.

Maternal Welfare—James E. Keeler, Kansas City, Chairman (1961); Joheph M. Krebs, St. Louis (1961); Joseph L. Johnston, Springfield (1960); William See, Columbia (1959); E. E. Wadlow, St. Joseph (1959); **Associate Members**—P. V. Siegel, Smithton; H. C. Willumson, St. Joseph; A. C. Trueblood, Jr., St. Louis; Irwin T. Craig, Joplin; J. J. Wimp, Kirksville; Forrest C. Long, Savannah; Eugene G. Hamilton, St. Louis; A. B. Sinclair, Kansas City.

Infant and Child Care—Daniel B. Landau, Hannibal, Chairman; H. E. Wachter, St. Joseph; R. J. LaDriere, St. Louis; Guy N. Magness, University City; Leonard L. Davis, Jr., Mexico; James J. Pascoe, Nevada; E. J. Schwartz, Springfield; J. N. Wiles, West Plains; James A. Kinder, Cape Girardeau; Gerald E. Hughes, Kansas City.

Health and Public Instruction—John R. McDaniel, St. Joseph, Chairman (1960); J. Earl Smith, St. Louis (1961); E. A. Belden, Jefferson City (1960); R. R. Grayson, St. Louis (1959); A. W. McAlcster, III, Kansas City (1959).

Constitution and By-Laws—W. A. Bloom, Fayette, Chairman (1960); W. L. Allee, Eldon (1961); P. W. Jennings, Canton (1961); H. M. Parker, Kansas City (1959); Kenneth V. Larsen, St. Louis (1959).

Fractures—R. E. Funsch, University City, Chairman (1961); O. P. Hampton, University City (1960); Thomas G. Otto, Cape Girardeau (1960); Paul W. Meyer, Kansas City (1959); Ralph K. Earp, St. Louis (1959). **Associate Members**—William C. Francis, Springfield; B. L. Murphy, Hannibal; Otis E. James, Kansas City; Glenn L. McElroy, Columbia.

Eye Health—T. E. Sanders, St. Louis, Chairman (1961); H. B. Ivy, Springfield (1961); Paul G. Wolff, Cape Girardeau (1960); John McLeod, Kansas City (1959); H. B. Stauffer, Jefferson City (1959). **Associate Members**—Dick H. Underwood, Kansas City; Michael F. Pernoud, St. Louis; D. E. Eggleston, Macon; W. L. Post, Joplin; Robert S. Minton, St. Joseph; W. J. Smith, Hannibal.

Control of Venereal Disease—Edwin M. Powell, Springfield, Chairman (1959); E. M. Cannon, St. Louis (1961); A. W. Neilson, St. Louis (1961); R. J. Murphy, Kansas City (1959); Robert B. Bristow, St. Joseph (1960). **Associate Member**—John E. Byrne, St. Louis.

Industrial Health—H. M. Roebber, Bonne Terre, Chairman (1960); Vencel W. Hollo, St. Louis (1961); William H. Duncan, Kansas City (1961); Douglas A. Ries, Richmond Heights (1960); S. W. Scorse, Joplin (1959). **Associate Member**—James W. Clawson, Springfield.

Diabetes—H. E. Oppenheimer, Clayton, Chairman (1960); J. Bruce Lemmon, Jr., Springfield (1961); H. M. Gilkey, Kansas City (1961); Charles M. Lamke, Columbia (1960); Lucien W. Ide, St. Joseph (1959). **Associate Members**—William H. Olmsted, St. Louis; Robert E. Koch, Clayton; Ralph S. Casford, Kansas City; John H. Walterschied, Hannibal.

Anesthesiology—O. T. Blanke, Joplin (1961); Russell D. Shelden, Kansas City (1961); W. W. Tillman, Springfield (1960); Carl K. Ness, St. Joseph (1960); Seymour Brown, St. Louis (1959).

Hospital and Professional Relations—Hollis N. Allen, St. Louis, Chairman (1961); W. S. Sewell, Springfield (1961); Stanley S. Peterson, Springfield (1960); Carl F. Vohs, St. Louis (1960); Victor B. Buhler, Kansas City (1959). **Associate Member**—W. F. Francka, Hannibal.

Laboratory Medicine—Victor B. Buhler, Kansas City, Chairman (1960); Angelo Lapi, Kansas City (1961); Fred C. Coller, Springfield (1960); J. Owen Blache, St. Louis (1959); Joseph E. Flynn, Columbia (1959). **Associate Member**—Hollis N. Allen, St. Louis

Physical Medicine and Rehabilitation—D. Elliott O'Reilly, St. Louis, Chairman (1961); F. O. Tietjen, Jefferson City (1961); John Cashman, Kansas City (1960); Frank D. Sundstrom, Springfield (1959); W. J. Stewart, Columbia (1959).

Civil Defense—William C. Allen, Glasgow; H. D. Steinbeck, Union; Carroll C. Hungate, Kansas City; A. S. Bristow, Princeton; John R. Forgrave, St. Joseph; J. M. Canella, Hannibal; Curtis H. Lohr, Clayton; Carl D. Siegel, Sedalia; R. Ned White, Springfield; George E. Thoma, St. Louis; George L. Watkins, Farmington; John A. Griffith, Jr., Kansas City (1959).

Special Committees

Tuberculosis—F. E. MacInnis, Kansas City, Chairman; Paul Murphy, St. Louis; Lawrence E. Wood, Kansas City; Joseph L. Lucido, St. Louis; Walter C. Gray, St. Louis; David N. Kerr, St. Louis; Glenn O. Turner, Springfield (1959).

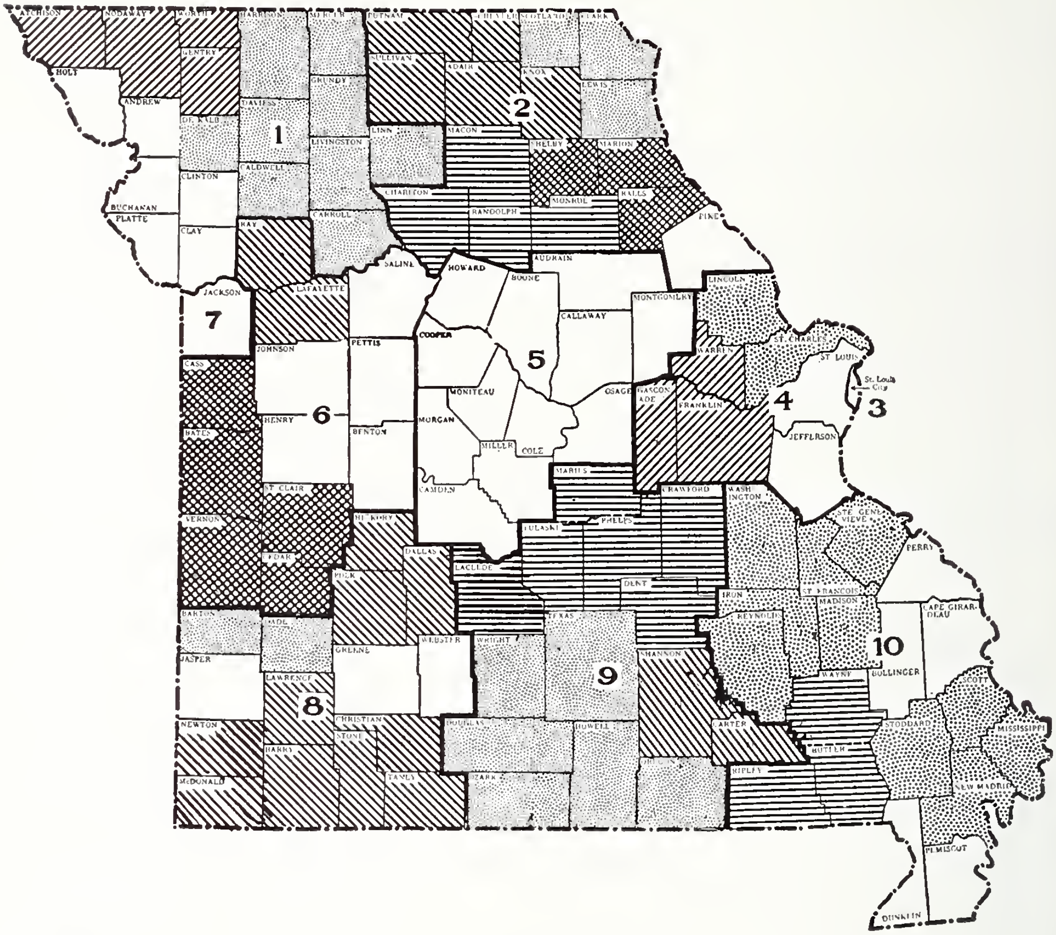
Study of Cardiac Disease—Earl L. Loyd, Jefferson City, Chairman; E. Lee Shrader, St. Louis; William I. Park, Springfield; E. J. McIntire, Carthage; A. M. Estes, Cape Girardeau; G. R. Hudson, Kirksville; W. J. Gillespie, St. Louis; C. A. Potter, Jr., St. Joseph; E. E. Glenn, Springfield; Martin J. Mueller, Kansas City (1959).

Alcoholism—Ralph E. Duncan, Kansas City, Chairman; S. D. Smith, Columbia; Joseph B. Kendis, St. Louis; George W. Forman, St. Joseph (1959).

Rural Medical Service—A. E. Spelman, Smithville, Chairman; W. J. Shaw, Fayette; B. J. Bass, Salem; Jack F. Pearl, St. Clair; Charles H. Lewellen, Louisiana; C. A. McBurney, Slater; Jack Mullen, Bonne Terre; A. J. C. McCallum, Aurora; Charles Lichty, Shelbina (1959).

American Medical Education Foundation—James P. Murphy, St. Louis, Chairman; Hugh E. Stephenson, Columbia; Donald F. Gose, Springfield; T. Reid Jones, Kansas City; H. E. Petersen, St. Joseph (1959).

Councilor Districts and Counties in Each District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ATCHISON
NODAWAY
WORTH
HARRISON
MERCER
PUTNAM
SULLIVAN
ADAIR
KNOX
LEWIS
HOLT
ANDREW
GENTRY
GRUNDY
DAVIESS
DE KALB
LINN
MACON
SHELBY
MARION
LIVINGSTON
CALDWELL
CLINTON
BUCHANAN
PLATTE
CLAY
RAY
CARROLL
CHARITON
RANDOLPH
MONROE
RALLS
PIKE
SALINE
HOWARD
BOONE
AUDRAIN
LAFAYETTE
JACKSON
LINCOLN
MONTGOMERY
CALLAWAY
COOPER
PETTIS
JOHNSON
ST. CHARLES
ST. LOUIS
St. Louis City
WARREN
CASS
MONITEAU
OSAGE
GASCONADE
FRANKLIN
HENRY
BENTON
MORGAN
MILLER
COLE
JEFFERSON
BATES
MARIES
ST. CLAIR
CAMDEN
CRAWFORD
WASHINGTON
STE. GENEVIEVE
VERNON
HICKORY
PULASKI
PHELPS
PERRY
CEDAR
DALLAS
LACLEDE
DENT
ST. FRANCOIS
POLK
IRON
MADISON
BARTON
DADE
GREENE
WEBSTER
WRIGHT
TEXAS
REYNOLDS
CAPE GIRARDEAU
JASPER
LAWRENCE
SHANNON
WAYNE
BOLLINGER
SCOTT
NEWTON
CHRISTIAN
DOUGLAS
HOWELL
CARTER
STODDARD
MISSISSIPPI
BARRY
STONE
BUTLER
McDONALD
TANEY
OZARK
RIPLEY
NEW MADRID
PEMISCOT
DUNKLIN

J. H. SUMMERS, Lebanon, Chairman.

DONALD M. DOWELL, Chillicothe, Vice Chairman.

First District: Councilor, Donald M. Dowell, Chillicothe. Counties: Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, De Kalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte, Worth.

Second District: Councilor, B. L. Murphy, Hannibal. Counties: Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby, Sullivan.

Third District: Councilor, Leonard T. Furlow, St. Louis. Counties: St. Louis City.

Fourth District: Councilor, Joseph C. Creech, Troy. Counties: Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis County, Warren.

Fifth District: Councilor, Byron M. Stuart, Boonville. Counties: Audrain, Boone, Callaway, Camden, Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan, *Osage*.

Sixth District: Councilor, C. G. Stauffacher, Sedalia. Counties: Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline, Vernon.

Seventh District: Councilor, Kenneth C. Hollweg, Kansas City. County: Jackson.

Eighth District: Councilor, W. W. Tillman, Springfield. Counties: Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney, Webster.

Ninth District: Councilor, J. H. Summers, Lebanon. Counties: Carter, Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas, Wright.

Tenth District: Councilor, Ben M. Bull, Ironton. Counties: *Bollinger*, Butler, Cape Girardeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington, Wayne.

Shaded areas show hyphenated component societies. Counties listed in italics are unorganized.

Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Component Societies in Affiliation With the Missouri State Medical Association

COUNTY	DISTRICT	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
Andrew	1	V. R. Wilson	Rosendale	M. L. Holliday	Fillmore
Audrain	5	Leonard Davis	Mexico	Harold Lankford	Mexico
Barton-Dade	8	Thomas W. Carroll	Lamar	Herbert M. Arnold	Lamar
Benton	6	T. S. Reser	Cole Camp	James A. Logan	Warsaw
Boone	5	Hugh E. Stephenson	Columbia	John J. Modlin	Columbia
Buchanan	1	Allen I. Herman	St. Joseph	William B. Rost	St. Joseph
Butler-Ripley-Wayne	10	A. L. May	Poplar Bluff	Edward C. Cline	Poplar Bluff
Callaway	5	Thomas L. Johnson	Fulton	James E. Hill	Fulton
Camden	5				
Cape Girardeau	10	Hugh V. Ashley	Cape Girardeau	Gerald M. Hoxworth	Cape Girardeau
Carter-Shannon	9	H. D. Rollins	Winona		
Chariton-Macon-Monroe-Randolph	2	W. D. Chute	Moberly	Robert H. Young	Moberly
Clay	1	James E. McCormick	North Kansas City	Robert H. Dunham	North Kansas City
Clinton	1	W. B. Spaulding	Plattsburg	J. P. Mabrey	Plattsburg
Cole	5	Byron E. Watts	Jefferson City		
Cooper	5	G. W. Winn	Boonville	T. C. Beckett	Boonville
Dallas-Hickory-Polk	8	Olin P. Griffin	Buffalo	George G. Robinson	Humansville
Dunklin	10	D. W. Croom	Malden	E. L. Spence	Kennett
Franklin-Gasconade-Warren	4	Frank G. Mays	Washington	William R. Richardson	Union
Grand River Medical Society (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Charles M. Grace	Chillicothe	Edgar A. Duffy	Trenton
Greene	8	Ronald F. Elkins	Springfield	G. Bruce Lemmon, Jr.	Springfield
Henry	6	Claude M. Thurber	Windsor	R. S. Hollingsworth	Clinton
Holt	1	F. E. Hogan	Mound City	D. C. Perry	Mound City
Howard	5	W. C. Allen	Glasgow	William A. Bloom	Fayette
Jackson	7	John H. Mayer, Jr.	Kansas City	Herbert H. Virden	Kansas City
Jasper	8	Robert E. Kirschman	Joplin	John W. Koehler	Joplin
Jefferson	4	Karl V. McKinstry	DeSoto	John F. Rutledge	Crystal City
Johnson	6	O. H. Damron	Warrensburg	Keith D. Jones	Warrensburg
Lafayette-Ray	6	Hugh S. Brady	Concordia	R. W. Riley	Lexington
Lewis-Clark-Scotland	2	J. R. Bridges	Kahoka	P. W. Jennings	Canton
Lincoln-St. Charles	4	E. J. Canty	St. Charles	Paul H. Rother	St. Charles
Marion-Ralls-Shelby	2	Sam T. Ellis	Hannibal	J. H. Walterscheid	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	James D. Butts	Rolla	M. K. Underwood	Rolla
Miller	5	W. L. Allee	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	10	Jack Mullen	Bonne Terre	Jack L. Foster	DesLoge
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	Samuel J. Byland	Wellsville
Morgan	5	J. L. Washburn	Versailles	R. R. Lyle	Versailles
Nodaway-Atchison-Gentry-Worth	1	Robert Dunshee	Maryville	Charles D. Humberd	Barnard
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Spencer L. Freeman	Kirksville	G. R. Hudson	Kirksville
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	M. C. Bowman	Neosho	A. J. Graves	Mount Vernon
Pemiscot	10	Joseph H. Poff	Caruthersville	John K. Duckworth	Hayti
Perry	10	Stanley G. Legner	Perryville	A. E. McDermott	Perryville
Pettis	6	Carl Siegel	Sedalia	Robert Stewart	Sedalia
Pike	2	John H. Hooker	Clarksville	W. Joe Martin	Louisiana
Platte	1	S. L. Durham	Dearborn	H. C. Thurman	Parkville
St. Louis City	3	A. W. Neilson	St. Louis	John P. Eberle	St. Louis
St. Louis	4	Emmett B. Drescher	St. Louis	Robert A. Mayer	St. Louis
Saline	6	B. F. Knipschild	Marshall	E. Lee McCorkle	Marshall
Semo County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Thomas C. McClure	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	Marvin L. Fowler	West Plains	Rollin H. Smith	West Plains
Webster	8	C. R. Macdonnell	Marshfield	E. G. Beers	Seymour
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	B. O. Hartwell	Drexel	J. C. Moody	Harrisonville

Towns and Counties

A

Adrian, Bates County
Affton, St. Louis County*
Albany, Gentry County
Altenburg, Perry County
Appleton City, St. Clair County
Ashland, Boone County
Aurora, Lawrence County
Ava, Douglas County

B

Bakersfield, Ozark County
Ballwin, St. Louis County*
Barnard, Nodaway County
Belton, Cass County
Berkeley, St. Louis County*
Bethany, Harrison County
Bloomfield, Stoddard County
Blue Springs, Jackson County
Bolivar, Polk County
Bonne Terre, St. Francois County
Boonville, Cooper County
Bourbon, Crawford County
Bowling Green, Pike County
Branson, Taney County
Brashear, Adair County
Braymer, Caldwell County
Brentwood, St. Louis County*
Bridgeton, St. Louis County*
Brookfield, Linn County
Browning, Linn County
Brunswick, Chariton County
Buffalo, Dallas County
Butler, Bates County

C

Cabool, Texas County
Cainsville, Harrison County
California, Moniteau County
Cameron, Clinton County
Campbell, Dunklin County
Canton, Lewis County
Cape Girardeau, Cape Girardeau County
Cardwell, Dunklin County
Carl Junction, Jasper County
Carrollton, Carroll County
Carthage, Jasper County
Caruthersville, Pemiscot County
Cassville, Barry County
Cedar Hill, Jefferson County
Centralia, Boone County
Chaffee, Scott County
Charleston, Mississippi County
Chesterfield, St. Louis County*
Chillicothe, Livingston County
Clarksville, Pike County
Clayton, St. Louis County*
Clinton, Henry County
Coatsville, Schuyler County
Cole Camp, Benton County
Columbia, Boone County
Concordia, Lafayette County
Conway, Laclede County
Crane, Stone County
Creve Coeur, St. Louis County*
Crystal City, Jefferson County
Cuba, Crawford County

D

Dearborn, Platte County
Desloge, St. Francois County
DeSoto, Jefferson County
Dexter, Stoddard County
Doniphan, Ripley County
Downing, Schuyler County
Drexel, Cass County

E

East Prairie, Mississippi County
Edgerton, Platte County
Edina, Knox County
Eldon, Miller County
El Dorado Springs, Cedar County
Elsberry, Lincoln County
Eureka, St. Louis County*
Everton, Jackson County
Excelsior Springs, Clay County

F

Farmington, St. Francois County
Faucett, Buchanan County
Fayette, Howard County
Fenton, St. Louis County*
Ferguson, St. Louis County*
Festus, Jefferson County
Fillmore, Andrew County
Flat River, St. Francois County
Florissant, St. Louis County*
Forsyth, Taney County
Fort Leonard Wood, Phelps County
Fredericktown, Madison County
Frontenac, St. Louis County*
Fulton, Callaway County

G

Gallatin, Daviess County
Garden City, Cass County
Gashland, Clay County
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Grandview, Jackson County
Grant City, Worth County
Gravois Mills, Jackson County
Greenfield, Dade County
Green Ridge, Pettis County

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Hannibal, Marion County
Harrisonville, Cass County
Hartville, Wright County
Hayti, Pemiscot County
Herculaneum, Jefferson County
Hermann, Gasconade County
Hickman Mills, Jackson County
Higginsville, Lafayette County
Hillsboro, Jefferson County
Holden, Johnson County
Hopkins, Nodaway County
Hornersville, Dunklin County
Houston, Texas County
Houstonia, Pettis County
Humansville, Polk County
Hume, Bates County
Huntsville, Randolph County

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Independence, Jackson County
Ironton, Iron County

J

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Jennings, St. Louis County*
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Mountain View, Howell County
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Brewer, Tom, Fulton
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C

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Ciapciak, Stanley J., St. Louis
Cibis, Paul A., St. Louis
Clancy, James F., St. Louis
Clapsaddle, Clare J., Ste. Genevieve
Clark, Chester Lee, Trenton
Clark, Harold B., Kansas City
Clark, Irving Howard, Hickman Mills
Clark, James Frederick, St. Louis
Clark, Kendall Allen, Jefferson City
Clarke, Michael J., Springfield
Clary, William F., Springfield
Clasen, Arthur C., Kansas City
Clawson, James W., Springfield
Clay, Calvin, St. Charles
Clay, Hampson S., Poplar Bluff
Clayton, Edgar Lawrence, Springfield
Cleary, Frank, St. Louis
Cleveland, Horace F., Long Beach, California
(Member St. Louis Medical Society)
Cline, Edward W., Poplar Bluff
Cline, Harold H., Piedmont
Cline, Merle A., Kansas City
Clithero, William H., St. Louis
Cloyd, Mason D., St. Louis
Coates, Thomas A., St. Louis
Coburn, Donald F., Kansas City
Cochran, Jo R., Cape Girardeau
Cochran, Thomas Ewell, Jr., Springfield
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence
Coffelt, Kenneth C., Ridgeland, Miss.
(Member Greene County)
Coffey, Ralph Ringo, Kansas City
Coffin, Ernest L., Portage, Maine
(Member St. Louis Medical Society)
Coffin, Theodore A., Kansas City
Coffman, Esther E. L., Lakeworth, Florida
(Member Ozarks Medical Society)
Cohen, Benjamin H., St. Louis
Cohen, Frank, St. Ann
Cohen, Harry K., Kansas City
Cohen, Hilliard, Kansas City
Cohen, Louis, St. Louis
Cohle, Richard R., Carthage
Cohnberg, Rosellen Elaine, Monett
Cohrs, Clarence C., Moberly
Coil, Paul E., Mexico
Colbert, James W., Jr., St. Louis
Coldwater, Kenneth B., St. Louis
Coleman, William G., St. Louis
Colgate, Cleon Edward, Amarillo, Texas
(Member St. Louis County)
Colglazier, Mary Catherine, Kansas City
Coller, Frederick C., Springfield
Collins, Gretchen Dorris, Macon
Collins, Jo Ed, Joplin
Collins, John M., St. Louis
Collodi, George A., Brentwood
Colom, George A., Kansas City
Comboy, Lawrence J., Independence
Comeau, Richard, Dexter
Comens, Ruth C., St. Louis
Commerford, James J., Crystal City
Compton, James Roy, Kirkwood
Cone, Alfred J., Chesterfield
Connell, Evans S., Kansas City
Connor, John J., St. Louis
Connor, Samuel W., Mountain Grove
Conover, Charles C., Kansas City
Conrad, Adolph H., St. Louis
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., Clayton
Conrad, Raymond C., Springfield
Conrad, Robert W., St. Joseph
Cook, Jerome E., St. Louis
Cook, Oliver W., Caruthersville
Cook, Ralph L., University City
Cook, Thomas Benton, Richmond
Cooke, Francis W., Caruthersville
Cooke, James K., Jr., Jacksonville, Fla.
(Member Pemiscot County)
Cooper, Charles S., Kansas City
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, John H., Kansas City
Cooper, John M., Butler
Cooper, Lawrence E., Ft. Myers, Florida
(Member Pemiscot County)
Cooper, Leo Francis, Kansas City
Cooper, Maurice Edmund, Columbia
Cooper, R. Lee, Warrensburg
Cooper, Thomas J., St. Louis
Cope, James C., Columbia
Cope, Joseph S., Lexington
Copher, Glover H., St. Louis
Cordonnier, Justin, St. Louis
Correnti, Nicholas A., St. Louis
Cortner, Mary C., Kansas City
Cossins, Carlos E., St. Joseph
(Member Nodaway-Atchison-Gentry-Worth Counties)
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., St. Louis
Costello, Joseph P., Jr., Brentwood
Costen, James B., St. Louis
Costrino, John J., University City
Costrino, Joseph A., University City
Cottrell, Wilson P., Reeds Spring
Coughlin, Bertrand D., St. Louis
Coulter, Robert L., Jr., St. Louis
Counsell, Chester M., Kansas City
Cowan, Robert D., Aurora
Cowdry, Edmund V., Jr., St. Louis
Cowherd, Joseph Bird, Kansas City
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, William A., Jefferson City
Cox, William L., Liberty
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Cramb, Arthur B., Lakeland, Florida
(Member North Central Counties)
Cramer, Quentin, Kansas City
Crawford, Archie L., Joplin
Crawford, Katherine Jean, St. Louis
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Creditor, Morton C., Kansas City
Creech, Joseph C., Troy
Crego, Clarence H., Jr., St. Louis
Cremer, William J., Fulton
Cresswell, George F., Potosi
Crews, Robert N., Fulton
Crider, Russell J., St. Charles
Crispell, Lawrence Stearns, Joplin
Critchlow, William C., Sikeston
Crites, Edward, Sedgewickville
Croom, Dorwyn Wayne, Malden
Crosby, Alice Stryker, Salem
Crossen, Robert J., Brentwood
Crossman, Robert W.. Webster Groves
Crouch, F. Richard, Farmington
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crozier, Franklin A., Richmond
Culbertson, William F., Kansas City
Culkin, Thomas R., St. Louis
Cullers, Charles Horace, Trenton
Cullum, Albert G. J., Cumberland, Ky.
(Member St. Louis County)
Cummings, James H., St. Louis
Cummins, Walter F., Kansas City
Cunningham, Darral Dean, Springfield
Cunningham, Eric Alton, Louisiana
Curl, Howard, Joplin
Curran, Edward J., Kansas City
Curran, Kevin E., Kansas City
Curran, Maurice D., Kansas City
Curts, Calvin J., Kansas City
Cutcliff, Daniel John, Kansas City
Cutler, Harold M., St. Louis
Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John W., St. Louis
Dahms, Gustave, St. Louis
Daley, Frank R., Hamilton
Dalton, Arthur R., St. Louis
Daman, George A., St. Louis
Dames, Richard J., St. Louis
Damron, Edward O., Elsberry
Damron, Oscar H.. Warrensburg
Danis, Peter G., Clayton
Dankner, Arnold, St. Louis
Dann, David S., Kansas City
Darnell, Thomas F. B., Columbia
Darrow, Robert S., Mexico City, Mexico
(Member Jackson County)
Daughaday, William H., St. Louis
Daum, Harold F.. Kansas City
Davault, George K., Richmond
Davidson, John Dee, St. Louis
Davidson, Morris, Clayton
Davie, Joseph, St. Louis
Davis, C. Braxton, Nevada
Davis, Edgar W., St. Louis
Davis, Frank L., St. Louis
Davis, Harry H., Rolla
Davis, Herbert V., Kansas City
Davis, Irl R., St. Louis
Davis, Jack M., Raytown
Davis, John J., Overland, Kansas
(Member Jackson County)
Davis, Kenneth Albert, Kansas City
Davis, Landis Y., Canton
Davis, Leonard Leander, Jr., Mexico
Davis, Martin W., Webster Groves
Davis, Myron Woodward, St. Louis
Davis, Paul C., Neosho
Davis, Robert C., Kansas City
Davis, Wilbur L., Charleston
Dawson, Orville L., Iowa City, Iowa
(Member Buchanan County)
Day, Anthony B., St. Louis
Day, Cameron B., Kansas City
Day, Maxwell, St. Joseph
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Dean, Lee Wallace, Jr., Clayton
Decker, Albert I., Kansas City
DeGenova, Gerald H., Ste. Genevieve
(Member Perry County)
DeHovitz, Bernard, St. Louis
Deitchman, Robert B., St. Louis
De Lashmutt, Edward J., Kansas City
de la Torre, John J., Sullivan
Delzell, William A., Springfield
DeMaria, Peter Frank, Kansas City
Demko, Frank, St. Louis
Demko, William, Sappington
DeMott, John D., Kansas City
DeMotte, John Allan, Kansas City
Dempsey, David T., Kennett
Denney, Richard W., Mountain Grove
Dennie, Charles C., Kansas City
Denninghoff, James C., Columbia
Denny, Hubert M., Union
Denton, Levi D., Hayti
DePew, Heber B., St. Louis
Dernoncourt, John E., Charleston
DeTar, Burleigh Eli, Joplin
DeTar, Burleigh E., Jr., Joplin
Deutch, Max, St. Louis
Devine, John B., St. Louis
Devine, Joyce E., St. Louis
Deweese, Everett Rollins, Kansas City
Dickson, Frank D., Kansas City
Dieckman, William C., Dexter
Diehr, Alvin H., St. Louis
Diehr, Maurice August, St. Louis
Diekroeger, Manuel Louis, Boonville
Dietrich, Karl David, Columbia
Dietz, M. Wendell, Springfield
DiLeo, Senatro W., St. Louis
Dill, Foster Alfred, Maplewood
Dillard, Erin M., Springfield
Dills, Joseph Newton, Springfield
Dimond, Edgar A., Springfield
Dinelli, Frank E., Poplar Bluff
Diveley, Rex. L., Kansas City
Dixon, John Rex, Brookfield
Dixon, Otto Jason, Kansas City
Dixon, Vewiser L., Kansas City
Dlabal, Luke J., Independence
Dmytryk, Eugene T., St. Louis
Doan, Deborah, Bakersfield
Doane, William L., Grandview
Dodd, Robert B., St. Louis
Dodge, Mark, Kansas City
Dodge, Milton, Kansas City
Doggett, Sylvester, Cape Girardeau
(Member West Central Counties)
Doherty, William R., Kansas City
Doisy, Robert A., Kirkwood
Domke, Herbert R., Clayton
Donahoe, James L., St. Louis
Donaldson, Robert Clinton, St. Louis
Donley, Leo F., Jr., Ferguson
Donley, Robert R., Monett
Donnell, Harold Emmett, DeSoto
Donnell, Robert Hart, Crystal City
Donnell, Thomas A., DeSoto
Dooley, Thomas A., St. Louis
Dorris, Richard P., Jefferson City
Dorsch, Ervin H., Independence 3
Dorsett, E. Lee, University City
Doubek, John C., St. Louis
Doubek, John Charles, Jr., St. Louis

Douglas, John W., Joplin
Douglass, Jesse Ellsworth, Kansas City
(Member Jasper County)
Dowd, James F., Jr., St. Louis
Dowell, Donald Maurice, Chillicothe
Dowell, Horace S., Chillicothe
Downey, James W., Kansas City
Doyle, Charles R., St. Louis
Drace, Charles C., St. Louis
Drace, Charles C., Jr., St. Louis
Drace, James J., Cape Girardeau
Drake, Avery Ala, Rolla
Drake, Roy F., Kansas City
Drake, Truman G., St. Louis
Drake, William L., Jr., St. Louis
Draney, Thomas E., Kansas City
Drescher, Emmett B., St. Louis
Drews, Leslie C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Dripps, Roy C., St. Louis
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Clarence G., St. Louis
Drum, Helen M., Clayton
Duckett, Claude E., Lamar
Duckworth, Gordon Lee, Jr., Hayti
Duckworth, John Kelly, Hayti
Duden, Charles W., St. Louis
Duemler, John H., St. Louis
Duer, Mildred C., Kansas City
Duffy, Edgar A., Trenton
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Kirkwood
Dulick, Michael, Brentwood
DuMont, Clement C., St. Joseph
Dunaway, Howard Andrew, Sikeston
Duncan, Ralph E., Kansas City
Duncan, Robert D., Springfield
Duncan, William H., Kansas City
Dunham, Robert H., North Kansas City
Dunham, Richard B., St. Louis
Dunleavy, James D., Kansas City
Dunmire, George Q., Kennett
Dunshee, Robert Edward, Maryville
Durham, Silas L., Dearborn
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
Dwyer, Hugh L., Kansas City
Dwyer, Reinhardt D., North Kansas City
Dwyer, Thomas L., Mexico
Dyer, Dallas J., St. Louis
Dyer, David P., Sedalia

E

Eades, Dee W., St. Louis
Eagleton, Mark D., Clayton
Earp, Ralph K., St. Louis
Ebel, Eugene Henry, St. Louis
Eber, Carl T., St. Louis
Eberle, John P., St. Louis
Eberle, Vincent L., St. Louis
Echterhoff, Harry R., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific
Eckert, Clarence Theodore, St. Louis
Ecklund, Archibald M., Great Lakes, Ill.
(Member St. Louis Medical Society)
Ector, Henry J., Mexico
Edde, Clifford G., Kansas City
Edele, Eugene Harry, St. Louis
Edmonds, Devilla D., Kansas City
Edmondson, Charles T., Malden
Edwards, David R., Sedalia
Edwards, Francis L., Monett
Edwards, Joseph C., St. Louis
Edwards, T. Burton, Cedar Hill
Edwards, Theodore F., North Kansas City
Edwards, Waldo B., Kirkwood
(Member Jefferson County)
Efron, Joseph, St. Louis
Eggleston, Donald E., Macon
Egley, Loren Edward, Kirkwood
Eidelman, Jack R., St. Louis
Eidmann, Walter P., St. Louis
Eigel, Edwin G., St. Louis
Eimer, Charles E., St. Louis
Eisemann, Gustave, Kansas City
Eisenmann, Benjamin P., New Haven
Eisenstein, Albert B., St. Louis
Eklund, Alfred W., Pleasant Hill
Elders, Frank A., Jr., Houston
Eldridge, Charles J., Kansas City
Elias, David J., Independence
Eliscu, Juliette M., Joplin
Elkins, Ronald F., Springfield
Eller, Byron H., Bangkok, Thailand
(Member Ozarks Counties)
Ellersieck, Dorothy M., St. Louis
Ellery, William L., LaGrange
Ellett, William H., Appleton City
Elliott, Gladden V., St. Louis
Elliott, James R., Pasadena, Calif.
(Member Jackson County)
Elliott, Raymond Glenn, Kansas City
Elliott, Wade E., Kansas City, Kansas
(Member Clay County)
Ellis, Burnett Eston, Gideon
Ellis, Calvin C., St. Louis
Ellis, Coburn H., Garden City
Ellis, Francis J., Springfield
Ellis, Sam T., Hannibal
Ellison, Leroy E., Maplewood
Ellsworth Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elson, Julius, Ladue
Emerson, Reynolds L., Brentwood
Emmert, Fred V., St. Louis
Engel, Lawrence P., Kansas City
Engelhardt, Robert C., Poplar Bluff
Engleman, Reinhold, St. Louis
English, Milton T., Jr., Kirksville
English, Wallace Davis, Cardwell
Engman, Martin F., Jr., St. Louis
Enloe, Lawrence David, Jefferson City
Enna, Carl D., Kansas City
Epp, George J., St. Louis
Epple, Kathryn Christman, Mexico
Epple, Lawrence King, Mexico
Epps, Curtis, Springfield
Erlanger, Herman, St. Louis
Erlanger, Joseph, St. Louis
Ernst, Edwin C., St. Louis
Ernst, Edwin C., Jr., St. Louis
Ernst, Joseph G., Oakland
Ernst, Richard E., St. Louis
Ernst, Roland P., St. Louis
Eshelman, Albert D., Kansas City
Eskeles, Irwin H., St. Louis
Esker, George, Nevada
(Member St. Louis Medical Society)
Esslinger, Arthur T., St. Louis
Estes, Albert M., Cape Girardeau
Estes, Jack M., St. Louis
Etherton, Monte Charles, Monett
Eto, Jackson, St. Louis
Eubank, David F., Raytown
Eubank, Dillard M., Raytown
Eubank, William R., Kansas City
Eubank, William Y., Kansas City
Evans, Albert L., Bonne Terre
Evans, Alden McChesney, Columbia
Evans, Ezra L., Jr., Springfield
Evans, Harry Troy, Branson
Eversman, George Henry, Jr., Kansas City
Eversoll, Norton John, St. Louis
Ewert, John O., Sedalia
Exon, C. Stuart, Jefferson City
Eyermann, Charles H., St. Louis
Eyermann, H. Walter, Warrenton

F

Fair, William L., Chillicothe
Fairchild, James F., Perryville
Falk, Oswald P. J., Clayton
Fallett, Charles E., DeSoto
Farley, Claude C., Kansas City
Farley, William M., St. Louis
Farney, Jacob P., Kansas City
Farnsworth, Jesse J., Kansas City
Farrar, Charles B., Cape Girardeau
(Member Mineral Area Medical Society)
Farrar, John T., Greenwich, Conn.
(Member St. Louis Medical Society)
Farrell, Robert J., St. Louis
Farris, William Walker, St. Louis
Farthing, Fred R., Springfield
Farthing, Gene W., Springfield
Fehlman, Bernard F., Jr., St. Louis
Feierabend, Frank L., Kansas City
Feind, Earl Everett, Rolla
Feinstein, Leon A., St. Louis
Feist, George V., Kansas City
Feldaker, Mauri, University City
Feldman, David, St. Louis
Feller, Charles, Springfield
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Fellows, William W., Washington, D. C.
(Member Chariton-Macon-Monroe-Randolph Counties)
Feltz, Lawrence W., Perryville
Ferguson, Donald S., Kansas City
Ferguson, Eugene H., Kansas City
Ferguson, James T., Kansas City
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Joplin
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Webb City
Ferguson, Thomas B., St. Louis
Ferguson, Wilson J., Sikeston
Ferrara, John Pierre, St. Louis
Ferrell, Thomas Enoch, Jr., Springfield
Ferris, Carl R., Kansas City
Fessenden, Ersel M., Springfield
Field, Lawrence M., Kansas City
Findley, James W., Kansas City
Finger, Donald H., St. Louis
Fingerhood, Marvin G., St. Louis
Fingert, Hyman H., St. Louis
Finkel, Barney W., St. Louis
Finkle, Robert H., Kansas City
Finley, Freeman L., Overland
Finn, Murray E., St. Louis
Finnegan, Frank R., St. Louis
Finnegan, Joseph V., St. Louis
Finney, William Ozro, Chaffee
Fischer, Edward H., North Kansas City
Fischer, Erich, St. Louis
Fischer, Theodore, Altenburg
Fish, Virgil O., St. Louis
Fisher, George E., Lebanon
Fisher, Joseph L., St. Joseph
Fisher, Stanley D., Sedalia
Fitch, C. H. Max, Springfield
FitzGerald, Leo P., University City
Fitzgerald, Robert H., Independence
Fitzgerald, William T., St. Louis
Flance, Israel J., St. Louis
Flanders, Horace Frank, Kansas City
Flatley, John A., Raytown
Flavan, David B., St. Louis
Fleishman, Alfred, St. Louis
Fleming, Jacob W., Jr., Moberly
Fleming, Paul D., Clayton
Fleming, Robert James, St. Charles
Fleming, Royall B., Kansas City
Fleming, Thomas S., Moberly
Fletcher, Paul F., St. Louis
Fletes, James W., Normandy
Flotte, Bernard H., St. Louis
Flotte, Sylvester A., St. Louis
Flynn, Edward P., St. Louis
Flynn, John T., St. Louis
Flynn, Joseph E., Columbia
Flynn, Joseph E., St. Louis
Focht, Ralph H., Strafford
Fogel, Isadore B., Los Angeles, Calif.
(Member Clay County)
Folck, William P., Kansas City
Fong, Richard R., St. Charles
Ford, Lee T., Jr., St. Louis
Ford, Walter W., Gordonville
Forgrave, John R., St. Joseph
Forgrave, Leon Paul, St. Joseph
Forman, George William, St. Joseph
Forman, Louis H., Kansas City
Forrester, James W., St. Louis
Forsen, James A., St. Louis
Forsman, Waldo W., Jr., Sappington
Forster, Armand C., St. Louis
Forsyth, B. Todd, St. Louis
Forsythe, Robert W., Kansas City
Forti, John J., St. Louis
Foster, Howard M., St. Louis
Foster, Jack Lee, Desloge
Foster, Leon, St. Louis
Foster, Robert L., St. Louis
Fowler, Fred Dumont, Kansas City
Fowler, I. Charles, North Kansas City
Fowler, James W., Kansas City
Fowler, Marvin L., West Plains
Fox, Leon J., St. Louis
Fox, Robert E., St. Louis
Frame, Homer Glenn, Springfield
(Member South Central Counties)
Francis, William C., Springfield
Francka, W. F., Hannibal
Frank, Adolph M., St. Louis
Frankl, George, Kansas City
Franklin, Harold A., St. Louis
Franklin, Max S., St. Louis
Franklin, Ralph, Morehouse
Frazier, Robert L., East Prairie
Fredeen, Robert C., Kansas City

Freedman, Harold, St. Louis
Freedman, Ruth S., St. Louis
Freeman, David M., St. Louis
Freeman, Hal Elson, Springfield
Freeman, Robert F., Columbia
Freeman, Spencer L., Kirksville
Freiermuth, Leo J., Jr., Patrick Air Force Base, Fla.
(Member St. Louis Medical Society)
Freiheit, Harold J., Ladue
Freimuth, Louis E., St. Louis
Frerking, Herbert W., St. Louis
Freund, H. G., Fulton
Freund, Newton M., St. Louis
Freund, Samuel J., St. Louis
Frick, John Paul, Kansas City
Friedman, Bernard, St. Louis
Friedman, Morris L., Kansas City
Fries, Armand D., St. Louis
Fries, John William, Webster Groves
Fries, William A., St. Louis
Frisch, Jane Bealock, St. Louis
Friskel, Arthur K., St. Louis
Fritschel, Godfrey C., St. Louis
Fritzlen, Thomas J., Kansas City, Kans.
Froelich, Edwin J., St. Louis
Froelich, Rae W., Lebanon
Froelich, Robert Earl, New York, N. Y.
(Member St. Louis County)
Fryer, Minot P., St. Louis
Fuchs, George J., Creve Coeur
Fuchs, George J., Jr., Columbia
Fuerth, Arthur L., Cape Girardeau
Fuhrman, Donald Lee, Kansas City
Fulbright, James H., Springfield
Fulkerson, Wilbur E., Higginsville
Fulks, Richard B., California
Funsch, Edwin Clarence, St. Louis
Funsch, Robert E., University City
Furla, Gus J., St. Louis
Furlow, Leonard T., St. Louis
Fuson, Levi Harrison, St. Joseph
Fuson, William Arthur, Trenton
Fuzzell, Jameso, Kennett

G

Gaebe, Harold Carl, Desloge
Gaffney, Caldwell James, St. Louis
Gafney, George Thomas, St. Louis
Gaines, Quentin McD., Kirkwood
Gainey, Harold L., Kansas City
Galbraith, Charles J., St. Louis
Gale, Joseph F., Chillicothe
Gale, Philip R., St. Louis
Galeota, William R., Columbia
Gall, Ira, St. Louis
Gallagher, John F., St. Louis
Gallagher, Lionel M., California
Gallivan, Edward L., St. Louis
Gandlmayr, Jack M., St. Louis
Ganley, William C., Kansas City
Gansloser, Maximilian W., St. Louis
Gansloser, Wilbert M., Clayton
Gantt, Ernest S., Jr., Mexico
Garcia, Charles L., Mexico
Gard, Raymond F., Independence
Gardiner, David Greth. St. Louis
Gardner, Joseph W., Glasgow
Garfinkel, Bernard T., St. Louis
Garner, Lynn Mason, Jefferson City
Garrett, Glen H., Columbia
Garrison, Roy F., Kansas City
Gary, George, Marceline
Gaskins, John Hayden, Kansas City
Gaston, Ralph E., Richmond Heights
Gauer, Robert J., Kansas City
(Member Clay County)
Gaunt, Frank P., Webster Groves
Gaunt, William, Columbia
Gay, Elmer Elwyn, Richmond
Gay, George, Ironton
Gay, Lee Pettit, Jefferson City
(Member St. Louis Medical Society)
Gearhart, Merriam, Bethany
Gebert, Clara M., Valley Park
Geha, Braham J., Kansas City
Geise, August W., Jr., St. Louis
Gempel, Paul A., Kansas City
Gentry, Enoch Nelson, Jr., Kansas City
Gentry, Marvin Carrol, Ava
Gentry, Merritt L., Springfield
Geraughty, Edward, Liberty
(Member Jackson County)
German, Walter Abel, Jr., Springfield
Gernstetter, Sangwill L., Poplar Bluff
Gerst, Aloysius C., St. Louis
Gerwig, H. Eugene, Downing
Gestring, Hugh A., Kansas City
Getelson, Joseph, Kansas City
Gibbons, Edward H., St. Louis
Gibson, David Marsh, Kansas City
Gibson, Helen F., St. Louis
Gibstine, Marvin H., St. Ann
Giem, Ross Nye, Rolla
Gieselman, Ralph V., St. Louis
Giesler, Donald H., Osceola
Gildea, Edwin F., St. Louis
Gildea, Margaret C. L., St. Louis
Gilden, Jerome J., St. Louis
Gilkey, Harry M., Kansas City
Gillespie, William J., St. Louis
Gilliland, Oliver S., Kansas City
Gillmor, Charles Stewart, Kansas City
Ginsberg, Norman A., Kansas City
Gish, Rutledge, Fulton
Gissy, Charles J., St. Louis
Gist, William Wilmet, Kansas City
Gitt, Joseph Julian, St. Louis
Gladney, John H., St. Louis
Glaser, Robert J., Denver, Colo.
(Member St. Louis County)
Glaser, Martin J., St. Louis
Glass, William James, Jr., Monett
Glassberg, Bertrand Y., St. Louis
Glasscock, Ernest L., Kansas City
Glenn, Elmer E., Springfield
Glennon, William P., St. Louis
Glick, Harry N., St. Louis
Glover, Kenneth, Mt. Vernon
Gloyne, Howard F., Kansas City
Glynn, Robert R., Springfield
Gnade, Albert J., St. Louis
Goebel, Joan M., St. Louis
Goldberg, Isadore Edward, Braymer
Goldenberg, Sidney, St. Louis
Goldenson, Max J., St. Louis
Goldfarb, Alvin, Olivette
Goldman, Alfred, St. Louis
Goldman, Hyman J., St. Louis
Goldman, Melvin L., St. Louis
Goldman, Stanley Lyle, Kansas City
Goldring, Sidney, St. Louis
Gollub, Samuel W., University City
Gonser. Karl B., Sedalia
Good, James Tucker, Springfield
Goodman, J. N., Glendale
Goodman, LeRoy, Kansas City
Goodman, Nathaniel, St. Louis
Goodrich, Harold Arrott, Webster Groves
Goodrich, Howard B., Winter Park, Florida
(Member Marion-Ralls Counties)
Goodson, William H., Liberty
Goodson, William H., Jr., Kansas City
Gorelick, David F., Springfield
Gorla, Wayne O., St. Louis
Gose, Don Ferrell, Springfield
Gowen, Leo F., St. Louis
Grabau, Gene H., St. Louis
Grable, James D., Portageville
Grabske, Charles F., Independence
Grabske, Charles F., Jr., Independence
Grace, Charles Melvin, Chillicothe
Gradwohl, Rutherford B. H., St. Louis
Graeser, Richard G., Kirkwood
Graham, James W., Kansas City
Graham, Wallace H., Kansas City
Graneto, Joseph A., St. Louis
Grant, Claude S., St. Joseph
Grant, Samuel B., St. Louis
Grantham, Samuel A., Jr., Joplin
Grauerholz, James W., Kansas City
Graul, Elmer G., St. Louis
Graul, Walter P., St. Louis
Graves, Arthur J., Mt. Vernon
Graves, F. Burton, Joplin
Gray, Helen M., St. Louis
Gray, Walter C., St. Louis
Grayson, Richard R., St. Louis
(Member Perry County)
Greaves, Eli A., Kansas City
Grebel, Clement B., St. Louis
Greditzer, Arthur S., St. Louis
Green, Daniel, St. Louis
Green, John R., Independence
Green. John Richard, Independence
Green, Manuel E., St. Louis
Green, Stanley L., Independence
Greenberg, Charles, St. Joseph
Greene, Harry L., Hannibal
Greene, Luther D., Richmond
Greene, W. Wallace, Kansas City
Greenman, Marshall B., Clayton
Greiner, Theodore, St. Louis
Griffin, Mary Evelyn Plummer, Buffalo
Griffin, Olin A., Jr., Buffalo
Griffith, Harry Milton, Columbia
Griffith, John A., Jr., Kansas City
Griggs, James Y., St. Louis
Grimes, Manning E., St. Joseph
Grindon, Joseph B., Jr., St. Louis
Griot, Albert J., St. Louis
Grogan, Frank M., St. Louis
Gronau, Axel R., St. Louis
Gross, Joseph L., St. Louis
Grosskreutz, Joseph A., St. James
Grossman, Marvin, Fredericktown
Grove, Gulp W., Knob Noster
Growdon, John A., Kansas City
Grueb, Paul M., St. Louis
Gruenfeld, Gerhard E., St. Louis
Grundmann, William H., St. Louis
Grybinas, Vytautas J., Ft. Riley, Kansas
(Member St. Louis Medical Society)
Guasch, Joseph S., Mount Vernon
Gubin, Alan S., Caruthersville
Guccione, Joseph B., St. Louis
Guffey, Don Carlos, Kansas City
Guhleman. Henry V., Jr., Jefferson City
Guldner, Edmond, Lamar
Gulick, Charles R., St. Louis
Gulick, Charles R., St. Louis
Gum, William R., St. Louis
Gummels, Belmont B., Richmond Heights
Gundlach, Arthur, St. Louis
Gundle, Sigmund, Kansas City
Gunn, Aubrey J., Versailles
Gunn, Jack, Versailles
Gunn, Richard W., Kansas City
Gunn, Walter T., St. Louis
Gurnee, Landan H., Jefferson City
Guze, Lucien B., Los Angeles, Calif.
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Guze, Samuel B., Los Angeles, Calif.
(Member St. Louis Medical Society)
Gzell, Ronald, St. Louis

H

Hackmeyer, Rubin, St. Louis
Haddock, James N., Webster Groves
Haffner, Heinz, St. Louis
Hagadorn, Jack L., Clayton
Hagan, Daniel J., St. Louis
Hagebusch, Omer E., St. Louis
Hagemann, Paul O., St. Louis
Haggen, Margaret E., Kansas City
Hahn, Andrew L., Springfield
Haight, John M., Kansas City
Hale, Tyre H., St. Louis
Hall, Andy, Jr., St. Louis
Hall, David W., Springfield
Hall, Durward G., Springfield
Hall, Eugene W., Ferguson
Hall, Frank W., Cape Girardeau
Hall, John, Ashland
Hall, Lee A., St. Louis
Hall, Marvin F., Joplin
Hall, Preston C., St. Louis
Hall, Robert A., St. Louis
Hall, Robert G., St. Louis
(Member Callaway County)
Hall, Thomas Bryan, Kansas City
Hallberg, John W., Everton
Halperin, Phillip H., Kansas City
Halpern, Lawrence K., St. Louis
Hamel, Herbert A., Kansas City
Hamill, Robert W., Kansas City
Hamilton, Caldwell K., St. Louis
Hamilton, Eugene G., St. Louis
Hamilton, Eugene H., Joplin
Hamilton, Hugh G., Kansas City
Hamlin, Wyeth, Hannibal
Hammler, Christiana Victoria, St. James
Hammond, John J., St. Louis
Hampton, Henry E., St. Louis
Hampton, Oscar P., Jr., St. Louis
Hampton, Stanley F., St. Louis
Hamtil, Edward William, St. Louis
Hanan, Ernest B., Springfield
Handler, Eric, St. Joseph
Handler, Fred P., Jefferson City
Handley, James M., Mission, Kans.
(Member Jackson County)
Hanes, Lee Duncan, Kansas City
Hanes, Robert L., Grandview
Hanford, Wesley W., St. Louis
Hankin, Norman M., St. Louis
Hanlon, C. Rollins, St. Louis
Hanna, Richard E., St. Louis
Hans, Willard J., St. Louis
Hansel, French K., St. Louis
Hansen, Arthur L., Butler

Hansen, David M., St. Louis
Hanser, Otto C., St. Louis
Hanser, S. Albert, St. Louis
Hanser, Theodore H., St. Louis
Hanss, Armand W., Springfield
Hardacre, Ruth Anna, Kansas City
Hardesty, Joel W., Hannibal
Hardwicke, Henry, Jefferson City
(Member Boone County)
Hardy, Guerdan, Clayton
Hardy, John W., Butte, Montana
(Member Chariton-Macon-Monroe-Randolph Counties)
Hardy, Joseph A., Jr., St. Louis
Harell, Alex, St. Louis
Harford, Carl G., St. Louis
Harkin, James C., St. Louis
Harkins, William B., St. Louis
Harkness, Harry, Warrensburg
Harland, Robert E., Ironton
Harless, Morris S., Kansas City
Harmann, Martin F., St. Louis
Harms, Florian L., Salisbury
Harned, Bert W., Overland Park, Kansas
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Harner, Casper Glendon, St. Joseph
Harper, Fleming B., St. Louis
Harrell, Henry J., Morrisville
Harrington, William J., St. Louis
Harris, Charles W., St. Louis
Harris, Hinman A., University City
Harris, Solon P., St. Louis
Harrison, Lee B., St. Louis
Harrison, Stanley L., St. Louis
Hart, Lawrence W., Kansas City
Hart, Martin M., Salem
Hart, Pearl Vance, Coatsville
Harting, Hugh R., St. Louis
Hartman, Paul T., St. Louis
Hartmann, Alexis F., St. Louis
Hartnett, Leo J., Clayton
Hartstein, Jack, St. Louis
Hartwell, Basil O., Drexel
Hartwig, Frederick H., Kansas City
Hartwig, John Adam, St. Louis
Harwell, James Lee, Poplar Bluff
Harwell, J. Lester, Poplar Bluff
Hashinger, Edward H., La Jolla, Calif.
(Member Jackson County)
Haskell, Ralph E., Norborne
Hasselblad, Oliver W., Kirksville
Hassett, Henry A., St. Louis
Hasson, Robert, Moberly
Hata, Daikichi, Boonville
Haw, Marvin T., Jr., Bonne Terre
Hawk, Bray O., St. Louis
Hawker, William D., St. Louis
Hawkins, George L., Jr., St. Louis
Hawkins, George W., Salisbury
Hawkins, Lee W., Glendale
Hayden, Loyola F., St. Louis
Hayek, Wesley E., St. Louis
Haynes, James W., St. Louis
Haynes, Lee, Kansas City
Haynes, Pugh, Jr., St. Louis
Haynes, Robert Clark, Marshall
Haynes, Solon Earl, Kansas City
Hazen, Robert M., Kansas City
H'Doubler, Francis T., Springfield
H'Doubler, Francis Todd, Jr., Springfield
Hearst, Allen L., Kansas City
Heid, Lloyd L., St. Louis
Heideman, Alvah G., St. Louis
Heideman, Milo L., St. Louis
Heifetz, Carl J., St. Louis
Heilbrunn, Max, Lockwood
Heimburger, Leroy F., Springfield
Heinbecker, Peter, St. Louis
Helbing, Edward J., St. Louis
Heibing, Harry H., St. Louis
Heller, B. Marcus, Kansas City
Hellerstein, Stanley, Kansas City
Hellweg, Charles E., Mt. Vernon
Helm, James O., New Florence
Helman, Richard G., Kansas City
Henderlite, John W., St. Louis
Hendin, Aaron, University City
Hendren, Glenn W., Liberty
Hengen, Henry E., Pattonville
Henke, Charles F., St. Louis
Hennelly, John Joseph, St. Louis
Henrickson, Hardin M., Poplar Bluff
Henrickson, Hardin O., Poplar Bluff
Henrickson, William E., Poplar Bluff
Henry, Clarke Latta, Kansas City
Henry, Clifford E., Kirksville
Henry, Schubert David, Kansas City
Henschel, Eugene V., St. Louis
Hensley, Daniel R., Wardell
Hepner, Walter Ray, Jr., Columbia
Herbert, Charles T., Cape Girardeau
Herbst, Frank, Kansas City
Herman, Allen I., St. Joseph
Herman, Morris, St. Louis
Herrick, Harold C., La Grange
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Herrman, George V., Kansas City
Hershey, Falls B., University City
Hertel, Albert L., St. Louis
Hess, Paul D., Kansas City
Hetlage, Louis P., Troy
Heusler, Anton F., St. Louis
Hewitt, John H., Excelsior Springs
Hewitt, Walter R., St. Louis
Heyer, Oscar C., St. Louis
Hibbard, Blaine Zook, Kansas City
Hickerson, John C., Independence
Hickerson, William H., Independence
Hickey, Robert F., St. Louis
Higgins, Robert S., Kansas City
Hildreth, H. Rommel, St. Louis
Hill, Jack H., Kansas City
Hill, James Eldon, Fulton
Hill, Jesse N., Independence
Hilton, Paul E., Kirksville
Hines, Arthur A., St. Louis
Hines, Paul, Kansas City
Hink, Frederick W., Kansas City
Hirsch, Albert, Middletown
Hirschboeck, Elizabeth J., Kansas City
Hitchcock, Waldo P., Columbia
Hite, Henry A., Green Ridge
Hixon, Walter S., Ferguson
Hobart, Carl Albert, St. Louis
Hobbs, Alonzo G., St. Louis
Hobbs, Earl B., Smithville
Hobbs, George H., Mt. Vernon
Hobbs, John E., St. Louis
Hoctor, Emmett F., Farmington
Hodge, Robert H., North Kansas City
Hodges, Fred J., III, St. Louis
Hodgson, Frank H., Kansas City
Hoefer, Walter H. V., St. Louis
Hoelscher, Harold F., Warrenton
Hoeper, Samuel D., Kansas City
Hoerchler, T. J., San Antonio, Texas
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Hoffman, Jacob S., Kansas City
Hoffmann, Augustin David, St. Louis
Hoffmann, R. Lee, Kansas City
Hofsommer, Armin C., Webster Groves
Hofstatter, Leopold, St. Louis
Hofstatter, Lilli, St. Louis
Hogan, Daniel F., Kansas City
Hogan, Frank E., Mound City
Hogeboom, George W., Springfield
Hogg, Garrett S., Jr., Cabool
Hogue, Frank S., Kansas City
Holbrook, Charles K., St. Louis
Holden, Raymond F., Jr., Wichita, Kans.
(Member St. Louis County)
Holdenried, William E., St. Louis
Holliday, Morgan Lee, Fillmore
Hollingsworth, Ray S., Clinton
Hollo, Vencel W., St. Louis
Hollweg, Kenneth C., Kansas City
Holman, Jurney H., Unionville
Holman, Melvin V., Kansas City
Holmes, David R., St. Louis
(Member Johnston County)
Holmes, Lemuel Isaac, Miller
Holmes, Prince A., Mount Vernon
Holscher, Edward C., St. Louis
Holt, Earl P., Jr., St. Louis
Holt, Waldo S., Kansas City
Holton, Edward B., Independence
Holtz, Alan S., St. Louis
Holtzman, Samuel, Joplin
Homan, Joseph S., St. John's
Honich, Nicholas J., St. Louis
Hook, Waller C., Kansas City
Hooker, John H., Clarksville
Hoover, H. Lee, Jr., Springfield
Hope, James L., Lebanon
Hopkins, Florian G., Gideon
Hopkins, Thomas J., Sedalia
Hopkins, Thomas S., Sedalia
Hornback, Edward R., Joplin
Hornback, George A., Hannibal
Horner, John L., St. Louis
Horseman, Robert F., Mission, Kans.
(Member Jackson County)
Horst, Otto C., Springfield
Horton, James D., Springfield
Horton, Ray B., North Kansas City
Horwitz, Irwin B., St. Louis
Hosto, Leland E., St. Louis
Houck, George W., Kansas City
Houck, Russell M., Kecoughtan, Va.
(Member Clay County)
Houston, Vincent T., St. Louis
Howard, Walter M., Joplin
Howden, Thomas Laurence, St. Joseph
Howe, Louis Francis, St. Louis
Howell, B. D., Brookfield
Hoxie, George H., Berkeley, Calif.
(Member Jackson County)
Hoxworth, Gerald Monroe, Cape Girardeau
Hrdlicka, Victor E., St. Louis
Huber, Erwin T., St. Louis
Huber, Lasley Earl, Moberly
Huck, Frank F., Fenton
Huck, Richard F., St. Louis
Huckstep, Robert A., Farmington
Hudson, Frank M., Kansas City
Hudson, G. R., Kirksville
Huggins, Albert M., St. Louis
Hughes, Gerald E., Kansas City
Hughes, Judson Martin, St. Joseph
Hughes, Robert G., Creve Coeur
Hughes, Shelby Bond, Clinton
Hulbert, Bernard, St. Louis
Hull, Walter S., Faucett
Humberd, Charles D., Barnard
Hummel, Anton J., St. Louis
Humphrey, Harvey A., St. Louis
Humphrey, Henry M., Brashear
Humphrey, James, St. Louis
Humphreys, Edward T., Boonville
Hungate, Carroll P., Kansas City
Hunt, Claude J., Kansas City
Hunt, John W., Jr., Leadwood
Hunt, Lloyd Hendrix, Salem
Hunt, William J., St. Joseph
Hunter, James Richard, Webster Groves
(Member Callaway County)
Hunter, Martin P., Kansas City
Hurst, Ben B., Lebanon
Hurst, Wilfred W., Joplin
Hurwitt, Frank, Kansas City
Husted, George William, Parma
Hutchinson, James H., Jr., St. Louis
Hutto, A. Herman, St. Louis
Hutton, Joseph Lewis, St. Louis
Hyman, Anna, St. Louis
Hyndman, Charles E., St. Louis

I

Ide, Lucien W., St. Joseph
Imes, Clifford Heath, Los Angeles, Calif.
(Member Ozarks County)
Imes, Elvin D., Maryville
Ingham, Walton C., Kansas City
Inkley, John J., St. Louis
Irick, Carl C., Webster Groves
Irland, Robert D., Kansas City
Irwig, Fred, Kansas City
Irwin, William F., Leasburg
Isbell, Charles H., Carthage
Israel, Milton R., St. Louis
Ittner, George W., Jr., St. Louis
Ivy, Henry Berry, Springfield
Izmirlian, Grant, Webster Groves

J

Jackson, Robert L., Columbia
Jackson, William R., Kansas City
Jackson, William Raymond, Maryville
Jacob, Walter P., Kansas City
Jacobs, Charles C., St. Louis
Jacobs, Frederick A., St. Louis
Jacobs, Morton, Kansas City
Jaeger, Joseph N., Jackson
Jaime, Nicholas, Kansas City
James, Edward Dean, Joplin
James, Norman A., St. Louis
James, Otis E., Jr., Kansas City
James, William M., St. Louis
Janney, James G., Jr., Clayton
Jansen, Robert, Kansas City
Jarvis, James A., Kansas City
Jaudon, Joseph C., St. Louis
Javaux, Everett J., St. Louis
Jean, J. Ted, St. Louis
Jeans, Virgil, Joplin
Jeffries, Robert C., Kansas City
Jenkins, Joseph M., St. Charles
Jenkins, Paul A., Lebanon
Jennett, Harry N., Kansas City
Jennett, James Harvey, Kansas City
Jennings, Ethlyn C., North Kansas City
(Member Platte County)

Jennings, P. W., Canton
Jennings, Robert J., Windsor
Jensen, J. Ernest, St. Louis
Jick, Sidney, St. Louis
Johns, George A., Marshall
Johnson, C. Laurence, Kansas City
Johnson, Charles Ronald, San Francisco, Calif.
(Member Marion-Ralls Counties)
Johnson, Charles S., Warrensburg
Johnson, David S., St. Louis
Johnson, Edgar W., Prairie Village, Kans.
(Member Jackson County)
Johnson, Edward M., El Paso, Texas
(Member Chariton-Macon-Monroe-Randolph Counties)
Johnson, Ferrell H., Lebanon
Johnson, Frank C., Doniphan
Johnson, George L., Springfield
Johnson, Glenn D., Maysville
Johnson, Grover C., Marthasville
Johnson, James S., Kansas City
Johnson, John Edwin, Kansas City
Johnson, Myron C., Richmond
Johnson, Mitchell D., St. Louis
Johnson, Paul A., Kansas City
Johnson, Q. Ray, Jr., Louisiana
Johnson, Richard E., Columbia
Johnson, Roy, Ferguson
Johnson, Thomas Maxwell, Kansas City
Johnson, Tom L., Fulton
Johnson, Warford B., Springfield
Johnson, William A., Kansas City
Johnson, William F., Springfield
Johnston, Joseph LeRoy, Springfield
Johnstone, John, Jr., Kirkwood
Johnstone, Paul Nugent, Kansas City
Jolley, J. Frank, Mexico
Jolly, Benjamin N., Mexico
Jolly, William Hardin, Mexico
Jonas, Harry S., Jr., Independence
Jones, Andrew B., St. Louis
Jones, Augustin, St. Louis
Jones, Dorothy J., Clayton
Jones, Edward E., Lilbourn
Jones, Edward S., Harrisonville
Jones, Garnett, St. Clair
(Member St. Louis County)
Jones, George H., Kansas City
Jones, Grey, St. Louis
Jones, James B., Brentwood
Jones, John Ben, Kirksville
Jones, Keith D., Warrensburg
Jones, Otey Sherman, St. Louis
Jones, Paul L., Flat River
Jones, Ralph H., Marshall
Jones, Richard A., St. Louis
Jones, T. Reid, Kansas City
Jones, Victor, Brentwood
Jones, Vincent L., St. Louis
Jordan, Edward J., St. Louis
Jordan, Walter R., St. Louis
Jorel, Louis E., Webster Groves
Jorstad, Louis H., St. Louis
Joseph, Harold Jerome, Ladue
Joslyn, Harold L., St. Louis
Jost, Charles A., St. Louis
Juden, Alexander G., Cape Girardeau
Judy, Joseph D., Ferguson
Jungk, Carl G. W., St. Louis
Justus, John Bahan, Kansas City

K

Kahn, Lawrence, Clayton
Kaiser, Clarence Drace, Roswell, New Mexico
(Member Pemiscot County)
Kallenbach, Glen P., Mexico
Kamakas, Nicholas, Ferguson
Kanagowa, Hajime H., Jefferson City
Kane, Clyde E., St. Louis
Kane, R. Emmet, St. Louis
Kantor, Julius M., Kansas City
Kantor, Samuel, Kansas City
Kaplan, Albert, Normandy
Kappesser, Netajean Broome, St. Louis
Kappesser, Roland C., St. Louis
Karandjeff, Apostle D., St. Louis
Karl, Michael M., St. Louis
Karraker, Alvan G., Farmington
Kaskie, Clifford R., Clayton
Kasten, Melvin C., Cape Girardeau
Katz, Milton, Kansas City
Katz, Samuel D., St. Louis
Kauffman, Ruth, Versailles
Kaul, Philip G., Kansas City
Kealhofer, George C., Kansas City
Kearney, Elmer F., Oregon
Keats, Theodore E., Columbia
Keeble, Charles B., St. Louis
Keeler, James E., Kansas City
Keenoy, John J., St. Louis
Keffler, Karl L., St. Louis
Kehoe, J. Joseph, St. Louis
Keim, John Harry, Cape Girardeau
Keim, John P., St. Louis
Keith, Willis E., Kansas City
Keller, Joseph M., St. Louis
Keller, Louis, St. Louis
Keller, Maurice J., St. Louis
Keller, Robert M., Wentzville
Kellett, John G., Webster Groves
Kelley, Gilbert B., Savannah
Kelley, Isaac D., Jr., St. Louis
Kelley, Ralph R., Savannah
Kelley, Robert W., St. Louis
Kelley, Walter L., Affton
Kelling, Douglas George, Waverly
Kelling, George A., Waverly
Kelling, Jordan, Waverly
Kelly, Eugene H., Kansas City
Kelly, Marshall W., Jefferson City
Kelly, R. Emmet, St. Louis
Keltner, Raymond O., Raytown
Kempinsky, Warren H., St. Louis
Kendis, Joseph B., St. Louis
Kennard, George Keith, Kansas City
Kennedy, Francis L., St. Louis
Kent, Bela Kaszas, Kansas City
Kent, Clifford F., Kansas City
Keown, Kenneth K., Columbia
Kepler, Earl C., Fulton
Kerr, David N., St. Louis
Kerr, Frank Taylor, Monett
Kerr, Russell W., Kansas City
Kessler, Joseph John, St. Louis
Ketcham, William M., Kansas City
Ketron, Marvin B., Kansas City
Kettelkamp, George D., St. Louis
Ketterman, Grace H., Kansas City
Ketterman, Herbert L., Kansas City
Kettner, Edward G., Kansas City
Key, James S., Springfield
Keyes, Edward Lawrence, St. Louis
Kibbe, Edgar A., California
Kibbe, John H., Monroe City
Kieber, Robert W., St. Joseph
Kieffer, Roland Spurlock, St. Louis
Kieffer, Victor B., Jr., St. Louis
Kiehl, Katharine, Joplin
Kienberger, Paul A., Kansas City
Kiene, Richard H., Kansas City
Kienzle, Edward C., St. Louis
Kilker, Clarence Howard, St. Louis
Kilker, Donald E., St. Louis
Killough, John Harvey, Columbia
Kimball, Ireland W., Broken Bow, Okla.
(Member Mid-Missouri Society)
Kimball, Merritt H., Kansas City
Kimberlin, Herbert C., Trenton
Kimelman, Nathan, St. Louis
Kimes, Ira D., Cameron
Kinder, James A., Cape Girardeau
King, Elbert R., Boise, Idaho
(Member West Central Counties)
King, Eustace E., III, St. Louis
King, Francis C., Kirkwood
King, James P., St. Louis
King, John V., St. Louis
King, Samuel J., St. Louis
King, Walter Robert, Kansas City
Kingsbury, Helen C., Kansas City
Kingsland, Robert C., Clayton
Kinner, Helmuth M., St. Louis
Kinney, Max W., Mound City
Kinsella, Dalton L., Jr., New York, N. Y.
(Member St. Louis Medical Society)
Kinsella, Edward D., St. Louis
Kinsella, Ralph A., St. Louis
Kinsella, Ralph A., Jr., St. Louis
Kirchner, Walter C. G., St. Louis
Kirk, Charlie W., Hopkins
Kirkpatrick, Milton E., Kansas City
Kirschman, Robert E., Joplin
Kirstein, Melvin B., St. Louis
Kirtz, Louis P., Clayton
Kiser, David M., Kansas City
Kissane, John M., St. Louis
Kister, George E., St. Charles
Kistner, William F., University City
Kitchell, William Everett, St. Clair
Kitchen, William M., Kansas City
Klaff, Daniel D., St. Louis
Klebba, Larry B., Jefferson City
Klein, Andrew G., St. Louis
Klein, Arnold G., St. Louis
Klein, Arthur, West Roxbury, Mass.
(Member St. Louis Medical Society)
Klein, Bert, St. Louis
Klein, Edward H., Kansas City
Klein, Harry A., St. Louis
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Klepinger, Dayton P., Kansas City
Klinge, Frederick W., St. Louis
Klingner, George M., Springfield
Klippel, Allen P., St. Louis
Klippel, Bernhardt W., St. Louis
Kloeppel, Carl F., Kirkwood
Klym, Nicholas, St. Louis
Knabb, Arthur D., Springfield
Knabb, Harris, Springfield
Knabb, Henry F., Springfield
Knabb, Henry F., Jr., Springfield
Knabb, Kenneth E., Springfield
Knapp, Rudolph, Golden City
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred Louis, Poplar Bluff
Knepper, Paul A., St. Joseph
Knese, Luke A., St. Louis
Knight, Franklin P., St. Louis
Knight, John S., Kansas City
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, B. F., Marshall
Knoch, H. Kermit, Kansas City
Knoke, Frederick W., Jr., St. Louis
Knopf, Keith, Brookfield
Knotts, Halleck C., Phoenixville, Pa.
(Member St. Louis Medical Society)
Knowlton, Norman P., Jr., Ladue
Knox, Earl R., Kansas City
(Member Clay County)
Koch, Robert E., Clayton
Koehler, Charles A., Kansas City
Koehler, John W., Joplin
Koenig, George H., St. Petersburg, Fla.
(Member St. Louis Medical Society)
Koenig, Karl F., St. Louis
Koerner, Kenneth A., Clayton
Koessel, Arthur W., St. Louis
Kohler, Eugene J., St. Louis
Kohler, Louis H., St. Louis
Kohn, Cecil M., Kansas City
Kolze, Vernon W., Springfield
Komanetsky, William M., St. Louis
Konzelmann, John Albert, St. Louis
Koon, Bernard T., St. Louis
Kopp, Jules H., St. Louis
Kopp, Leonard J., St. Louis
Koppenbrink, Walter E., Jr., Higginsville
Korn, Robert L., Clayton
Korth, William M., Kansas City
Kotner, Lawrence M., St. Louis
Kountz, William B., St. Louis
Kouri, Martin F., St. Louis
Koutsoumpas, William V., St. Louis
Kovac, Albert P., Kansas City
Kowert, Edward H., St. Louis
Kozal, Francis L., Crystal City
Kraft, Edward O., Brentwood
Kraft, Jacob, Kansas City
Kramer, Fred, St. Louis
Kramolowsky, Helmuth H., St. Louis
Kraner, Justin F., St. Louis
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Krause, G. Lynn, St. Louis
Krebs, Joseph M., Clayton
Krebs, Otto St. Clair, St. Louis
Krieger, John L., St. Louis
Kromer, Charles, St. Louis
Kubitschek, Paul F., St. Louis
Kuebrich, Thomas C., Ferguson
Kuenzi, Donald E., Gashland
Kuhn, John Raymond, Jr., Joplin
Kuhn, William F., II, Kansas City
Kulowski, Jacob, St. Joseph
Kurth, Robert K., St. Louis
Kutryb, Walter J., St. Louis
Kurz, Rudolph F., St. Louis
Kuttner, Marianne, St. Louis
Kyger, Fred B., Kansas City
Kyger, John E., Kansas City
Kyner, Thomas A., Kansas City

L

Lachance, Leopold, Centralia
Lacy, N. Eugene, Kansas City
Ladd, Charles B., St. Louis
Ladenson, Roland Paul, Columbia
LaDriere, Raymond J., St. Louis

Laffoon, France L., Vista, Calif.
(Member Jackson County)
LaHue, Lilburn D., Butler
Lakes, John D., Litchfield, Ill.
(Member St. Louis Medical Society)
Lally, James J., Kansas City
Lam, Robert Lee, St. Louis
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lamb, Woodrow M., Caruthersville
Lambert, Marian, Kansas City
(Member Grand River Counties)
Lamke, Charles M., Columbia
Lamson, Roy C., Neosho
Lamy, John E., Sedalia
Landau, Daniel B., Hannibal
Landau, William M., St. Louis
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Landree, James C., St. Louis
Lane, Clinton W., St. Louis
Laney, Ronald L., Oceanside, Calif.
(Member Jasper County)
Langan, William J., Jr., St. Louis
Lange, Adolph C., St. Louis
Langeluttig, Harry Vernon, Mt. Vernon
Langenbach, Alfred M., St. Louis
Langhus, Melvin O., North Kansas City
Langston, Walter R., Springfield
Lanier, Earl W., St. Louis
Laning, J. Halcombe, Kansas City
Lankford, Harold D., Mexico
Lanning, Richard C., Ste. Genevieve
Lanning, Robert J., Hannibal
Lansche, Elmer Arnold, Pine Lawn
Lapi, Angelo, Kansas City
Lapi, Ruth M., Kansas City
Lapp, Harry C., Kansas City
Larimore, Joseph Wm., St. Louis
Larkin, Rosemary R., St. Louis
Larsen, Kenneth V., St. Louis
Larson, Paul U., St. Louis
LaSalle, Micheal W., Kansas City
Lassar, Gilbert N., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Lattinville, Henry E., St. Louis
Lau, Gustav A., St. Joseph
Laurenzana, Frank Paul, Kansas City
Lawless, Charles L., Marshall
Lawrence, George H., St. Louis
Lawrence, John Richard, Marshall
Lawrence, John V., St. Louis
Lawton, John T., St. Louis
Lawton, Lawrence M., St. Louis
Lawton, Thomas P., St. Louis
Layton, Ira C., Kansas City
Leahy, John G., Clayton
LeBlanc, Leo J., St. Louis
Lederer, Charles Marshall, Warrensburg
Lederman, Joseph, St. Louis
Lee, George C., Kansas City
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Claude K., Columbia
Legner, Stanley G., Perryville
Lehner, Richard L., Kansas City
Leidinger, Karl Jos., Republic
Leifer, William W., Kansas City
Leitch, Cecil George, Kansas City
Leitz, Frank B., Kansas City
Lembeck, Joseph A., St. Louis
Lemire, Robert W., Sedalia
Lemmon, George B., Springfield
Lemmon, G. Bruce, Jr., Springfield
Lenobel, Milton I., Clayton
Lentz, Clark H., Kansas City
Lentz, Harold Calvin, Neosho
Lerner, Abe F., Clayton
Lerwick, Everett R., St. Louis
Leslie, Charles Harold, Kirkwood
Leslie, James F., Springfield
Leslie, J. Paul, Jefferson City
Leslie, James T., Jefferson City
Levey, Harry B., Kansas City
Levey, Simon A., St. Louis
Levin, Marvin E., University City
Levin, Sidney Saul, St. Louis
Levine, Ervan L., Vandalia
(Member Marion-Ralls Counties)
Levitt, Joseph, University City
Levy, Irwin, St. Louis
Lewellen, Charles H., Louisiana
Lewellen, Charles P., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, James E., Jr., St. Louis
Lewis, Ray Blaine, Columbia
Lewis, Revis C., Kansas City

Leydig, Stanley M., St. Louis
Lichtor, Alexander, Kansas City
Lichtor, Joseph M., Kansas City
Lichty, Charles A., Shelbina
Lieb, Francis X., St. Louis
Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David Martin, St. Louis
Liebmann, Fritz M., St. Louis
Liersch, Joseph C., Kansas City
Liese, Grover B., St. Louis
Liggett, Hiram S., St. Louis
Liggett, M. S., Marceline
Lilly, Terry Erastus, Kansas City
Lilly, Terry E., Jr., Kansas City
Limbaugh, Walter R., Hayti
Lindeman, Carl H., St. Louis
Lindquist, Carl N., Kansas City
Lindsay, John W., Conway
Link, Alexander J., St. Louis
Link, Vance Eugene, Independence
Linton, Clair S., Kennett
Linville, Howard E., Kansas City
Lipschitz, Ervin, Clayton
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Lissack, Edmund, Concordia
Liston, Odus, Oakgrove
Littauer, David, St. Louis
Little, Monroe H., St. Louis
Littmann, Lewis E., Clayton
Litton, Lyle D., Springfield
Litzow, Louis T., St. Louis
Locker, George E., Iantha
Lockhart, Charles E., Springfield
Lockwood, William E., Slater
Lodwick, Gwilym S., Columbia
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Loewy, Louise B., Kansas City
Logan, James A., Warsaw
Logue, John M., Columbia
Lohr, Curtis H., St. Louis
Lohr, Robert W., Florissant
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, David S., Harrisonville
Long, Forrest C., Savannah
Long, Frank Barnes, St. Louis
Long, Frank B., Sedalia
Long, Robert Stacy, Kansas City
Longenecker, Joe L., Joplin
Lonsway, Maurice J., St. Louis
LoPiccolo, Vincent J., St. Louis
Lord, Richard E., St. Louis
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Love, Drury McMillian, Kansas City
Love, Robert W., Jr., Kansas City
Love, Walter S., Nevada
Loving, B. Rush, Ballwin
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin Lewis, Sedalia
Lowe, Horace A., Springfield
Lowe, Horace Arch, Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., St. Louis
Lowney, John F., Columbia
Lowrey, Ford Jackson, Kansas City
Loyd, Earl L., Jefferson City
Loyd, Herlan O., Jefferson City
Lucas, John H., Brookfield
Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul Thomas, Plattsburg
Luckey, Horace Leslie, Maplewood
Luedde, Fullerton W., Clayton
Luedde, Philip S., St. Louis
Luh, Andrew, St. Louis
Luman, Frank E., Edina
Lund, Herluf G., St. Louis
Lund, Robert Herluf, Clayton
Lundgren, Fred H., Jr., Kansas City
Luppens, Albert F., Lee's Summit
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luten, Drew W., St. Louis
Luter, Carter Wilkinson, Butler
Lutkewitte, Joseph F., St. Marys
Lutz, Martin H., St. Louis
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert Raymond, Versailles
Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lytle, William R., Rolla
Lyttle, Garnet C., St. Louis

Lytton, George J., Kansas City
Lytton, William B., Clayton

Mc

McAdam, Charles R., St. Louis
McAdoo, Hosea W., Springfield
McAfee, C. Alan, St. Louis
McAlester, Andrew W., Kansas City
McAlhany, Howard J., Springfield
McArtor, Thomas R., Browning
McBurney, Charles A., Slater
McCall, Edwin L., Brentwood
McCalla, John Patrick, Kansas City
McCallum, Andrew J. C., Aurora
McCann, John F., St. Louis
McCann, Louis P., Nevada
McCanse, Raymond A., Kansas City
McCarroll, Henry R., St. Louis
McCarthy, Eugene F., St. Louis
McCarthy, Thomas D., Ferguson
McCarthy, William F., Blue Springs
McCaughan, John Milton, St. Louis
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, Webster Groves
McClure, David N., St. Louis
McClure, Thomas C., Sikeston
McComas, Robert E., Columbia
(Member Jackson County)
McConchie, James E., Independence
McCorkle, E. Lee, Marshall
McCormick, James E., Kansas City
(Member Clay County)
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCubbin, Clarence Roy, Kansas City
McCubbin, J. Burleigh, New York
(Member Callaway County)
McCullough, Campbell C., Kansas City
McCunniff, William B., Kansas City
McDaniel, John R., St. Joseph
McDermott, Alfred E., Perryville
McDonald, Bruce P., Kansas City
McDonald, Eugene F., Jackson
McDonald, George H., St. Louis
McDonald, Terrence J., Tipton
McDonald, Victor G., Kansas City
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, Robert C., St. James
McDowell, Frank S., St. Louis
McElroy, Glenn L., Columbia
McElvain, Robert C., St. Louis
McFadden, James F., Farmington
(Member St. Louis Medical Society)
McFadden, James F., Jr., St. Louis
McFarland, M. Donald, Kansas City
McGinnis, Byron J., St. Louis
McGinnis, William F., Clayton
McGinty, Charles P., Cape Girardeau
McGlothlan, Arthur B., St. Joseph
McHale, Thomas C., Kansas City
McHaney, John W., Jefferson City
McIntire, Emery J., Carthage
McIntire, Landon R., St. Charles
McKaskle, Clarence W., Caruthersville
McKee, Joseph W., Kansas City
McKee, Oliver A., Kirkwood
McKinstry, Karl V., DeSoto
McKnelly, William von, Jefferson City
McLean, Harry A., St. Louis
McLean, Royal C., Kirkwood
McLelland, Richard I., University City
McLeod, John, Kansas City
McMahan, John H., St. Louis
McMahon, Alphonse, St. Louis
McMahon, Bernard J., Clayton
McMillan, Thomas E., Kansas City
McMurtry, Leonard K., Moberly
McNalley, Frank P., Clayton
McNalley, Michael, St. Louis
McNamara, John J., Florissant
McNamee, Owen J., St. Louis
McNamee, William Francis, St. Louis
McNearney, Joseph, St. Louis
McNeel, Lee A., Jr., Greenfield
McNew, William T., Carthage
McPhee, William R., Kansas City
McPheeters, James W., Poplar Bluff
McPheeters, James W., Jr., Poplar Bluff
McPherson, Owen P., Kansas City
McPike, Lloyd H., Joplin
McSwiney, John G., St. Louis
McVay, James R., Kansas City
McVay, James R., Jr., Kansas City

M

Maas, Hermann, St. Louis
Mabrey, John P., Plattsburg
Macauley, Bernard Joseph, Poplar Bluff
MacBryde, Cyril M., Kirkwood
Macdonald, William C., St. Louis
Macdonnell, Carey Ryker, Marshfield
Macdonnell, Thomas M., Marshfield
Machek, Otakar, St. Louis
MacInnis, Florence E., Kansas City
Mack, Mary L., address unknown
(Member Jasper County)
Mack, Robert E., St. Louis
Macko, Joseph R., St. Louis
Maclean, John A., Monrovia, Calif.
(Member Jackson Conuty)
MacNaughton, Robert A., Kansas City
Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
Maddox, John D., Joplin
Maddux, William Paul, Springfield
Madison, Waite H., Marshall
Magee, Charles D., St. Louis
Magee, Robert Leslie, El Dorado Springs
Magee, William E., St. Louis
Magidson, Joseph, Clayton
Magill, Joseph S., Milan
Magness, Guy N., University City
Magness, William C., Branson
Magnin, Richard L., St. Joseph
Mahe, George A., Clayton
Maher, Robert Woodruff, Springfield
Maher, Thomas F., St. Louis
Mairs, Edgar J., Trenton
Maizus, Saul Hyman, St. Louis
Major, Hermon S., Kansas City
Makous, Norman, Kansas City
Malinoski, Mitchell V., Poplar Bluff
Malles, A. Conrad, St. Louis
Malouf, George M., Cuba
(Member Mid-Missouri)
Mandler, George, Chillicothe
Manganaro, Frank J., St. Louis
Mangels, Kenneth Albert, Independence
Manion, Peter J., St. Louis
Mannis, Ben G., St. Louis
Mansbacher, Kurt, St. Louis
Mansur, Edward E., Miami, Fla.
(Member Cole County)
Manting, George, St. Louis
Maple, Francis M., Springfield
Maples, Floyd H., Mt. Vernon
Marcus, Morris D., St. Louis
Markel, Arthur D., Poplar Bluff
Marks, Mark M., Kansas City
Marmor, William A., St. Louis
Marsh, Alice, Kansas City, Kansas
(Member Jackson County)
Marshall, Alfred H., Charleston
Marshall, Cameron F., Kansas City
Marshall, Wilbur J., Springfield
Marston, Warren G., St. Louis
Martin, Albert J., East Prairie
Martin, Andrew D., Sikeston
Martin, Charles E., St. Louis
Martin, Forrest Logan, Nevada
Martin, Frederick W., Jr., Ladue
Martin, John N., St. Joseph
Martin, Joseph Louis, Eglin Air Force Base, Fla.
(Member Lafayette-Ray Counties)
Martin, Maynard W., Houston, Texas
(Member St. Louis Medical Society)
Martin, Raymond T., St. Louis
Martin, Thomas M., St. Louis
Martin, Wilfred, Odessa
Martin, W. Joe, Louisiana
Martt, Jack M., Columbia
Martz, John C., Webster Groves
Mason, Roy E., St. Louis
Massie, Edward, St. Louis
Masters, William H., St. Louis
Mastin, E. Vernon, St. Louis
Mathewson, Hugh S., Kansas City
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John Immel, Jefferson City
Mattis, Robert Dean, Clayton
Maughs, Sydney B., St. Louis
Max, Paul F., St. Louis
Maxey, Hugh W., Jefferson City
Maxson, T. Reed, Warrensburg
Maxwell, Richard W., University City
May, Albert Louis, Jr., Poplar Bluff
May, Benjamin F., St. Louis
May, James W., Kansas City
Mayer, John H., Jr., Kansas City
Mayer, Robert August, St. Louis
Mayfield, James Logan, Crystal City
Mays, Frank G., Washington
Maze, Lawrence E., St. Louis
Mazur, Herbert A., University City
Mead, Samuel T., Slater
Meador, James R., Clayton
Meagher, Arthur J., St. Louis
Meares, Cecil H., Jr., Joplin
Medler, Francis J., St. Louis
Mehan, George T., St. Louis
Meier, Francis X., Jefferson City
Meinberg, William H., St. Louis
Meiners, Edwin P., St. Louis
Meiners, Theodore M., Webster Groves
Meinershagen, Charles W., Jefferson City
Meisenbach, A. Edward, St. Louis
Melgaard, S. Ross, Kansas City
Melick, William F., St. Louis
Mellies, Eugene G., St. Louis
Meluney, Solomon E., St. Joseph
Mendonsa, Elsa L., University City
Mendonsa, Lawrence E., St. Louis
Menne, Marvin G., Ironton
Merenda, Sam J., St. Louis
Meriwether, Don R., Mission, Kans.
(Member Jackson County)
Merklin, Anton L., St. Louis
Merritt, Burch A., St. Louis
Merryman, Charles H., Senath
Merz, Jean J., Jennings
Mestres, Hugh M., St. Louis
Metz, Charles O., St. Louis
Meyer, Claude B., Springfield
Meyer, Curtis A., St. Louis
Meyer, Herman M., St. Louis
Meyer, James E., Ballwin
Meyer, Oscar D., St. Louis
Meyer, Paul W., Kansas City
Meyerhardt, Milton H., St. Louis
Meyers, Harold L., Kansas City
Meyers, John B., St. Louis
Meyers, Montague M., St. Louis
Mezera, Raymond A., University City
Michael, Kenneth D., St. Louis
Michael, Vernon E., St. Louis
Michaelis, Charles E., Fredericktown
Michaelree, John F., Maplewood
Middleman, Isadore C., St. Louis
Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Milder, Benjamin, St. Louis
Miles, George Oliver, Kansas City
Miles, Paul W., St. Louis
Miller, Charles, Jr., Kirkwood
Miller, Charles Waugh, St. Louis
Miller, Clinton L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Montgomery, Ala.
(Member Chariton-Macon-Monroe-Randolph Counties)
Miller, Gerald L., Kansas City
Miller, Harold W., Willow Springs
Miller, Howard S., Macon
Miller, James E., St. Louis
Miller, Leroy J., Columbia
Miller, Norman C., St. Louis
Miller, Oliver Jerome, Cape Girardeau
(Member Perry County)
Miller, Wade Hampton, Kansas City
Miller, Walter P., Kansas City
Miller, Wilson H., Kansas City
Millikin, Lester A., St. Louis
Mills, Warren B., St. Louis
Milster, Clyde R., St. Louis
Miltenberger, Paul C., Kennett
Minnihan, Robert W., St. Louis
Minton, Robert S., St. Joseph
Missey, Wilburn C., Jr., Creve Coeur
Mistachkin, Norman Leonard, St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Ernest, Goodman
Mitchell, Robert H., Kansas City
Mitchell, Roy Earl, Salem
Mitchell, Samuel E., Malden
Mixson, William C., Kansas City
Modlin, John J., Columbia
Moeller, Carl E., St. Louis
Moen, Berwyn H., St. Joseph
Mohler, Elbert Mitchell, Jr., Long Beach, Calif.
(Member Dunklin County)
Molden, Charles Arthur, St. Louis
Molholm, Hans B., Independence, Iowa
(Member St. Louis Medical Society)
Monahan, Elmer P., Lenexa, Kansas
(Member Jackson County)
Monat, Seymour, St. Louis
Montani, Charles, St. Louis
Montello, Samuel Anthony, Kansas City
Montgomery, Austin F., St. Louis
Montgomery, James Gordon, Kansas City
Montgomery, John S., Milan
Moody, Jackson Connely, Harrisonville
Mooney, Justin Loeb, Kansas City
Mooney, Marcel L., Kansas City
Moore, Carl V., St. Louis
Moore, Harry G., St. Louis
Moore, Neil S., St. Louis
Moore, Robert A., Kansas City
Moore, Sherwood, St. Louis
Moore, Walter L., Clayton
Moore, William E., Normandy
Morest, F. Stanley, Kansas City
Morfit, John C., Clayton
Morgan, David B., Kansas City
Moriarty, Lauren R., Kansas City
Morrin, Kevin C., St. Louis
Morris, Clyde L., Caruthersville
Morris, Harvey E., St. Louis
Morris, Mary E., St. Louis
Morrison, Donald H., Claycomo
Morrison, George B., Nevada
Morrison, T. A., Aurora
Morrow, Raymond L., Kansas City
Morroway, James H., St. Joseph
Morse, Marvin, St. Joseph
Mortensen, Frede, St. Louis
Morton, Paul C., Springfield
Moseley, F. Thomas, Springfield
Moses, Robert A., St. Louis
Moss, Paul, Kansas City
Mosser, Robert S., Kansas City
Mothershead, John L., St. Joseph
Mott, James R., Hartville
Motzel, Albert J., St. Louis
Mountjoy, Grace S., Clayton
Mowrey, William O., St. Louis
Moyer, Carl A., St. Louis
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerald, St. Louis
Mudd, James L., St. Louis
Mueller, Clarence E., St. Louis
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., Clayton
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, Wilbur K., St. Louis
Muench, Albert Harry, St. Joseph
Muench, Ludwig O., Washington
Muether, Raymond O., St. Louis
Mullarky, Wilbur A., St. Louis
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., North Kansas City
Multhauf, Cyril Joseph, Kansas City
Mundy, Homer F., St. Joseph
Mundy, William L., Kansas City
Munsch, Augustin P., St. Louis
Munsch, Girard A., St. Louis
Murphy, Bernard L., Hannibal
Murphy, George E., St. Louis
Murphy, James Patrick, St. Louis
Murphy, John C., St. Louis
Murphy, John P., St. Louis
Murphy, Paul, St. Louis
Murphy, Robert J., Kansas City
Murray, John Watts, Warsaw
Murray, Louis F., St. Louis
Muschany, Norman K., Troy
Musgrave, David E., Excelsior Springs
Musick, James D., Springfield
Musser, Richard E., Ekalaka, Mont.
(Member South Central Counties)
Mutshnick, Clara P., St. Louis
Myers, James M., Rolla
Myers, John L., Des Moines, Wash.
(Member Jackson County)
Myers, John Simeon, Kansas City
Myers, Robert M., Kansas City
Myers, Roy E., Joplin
Myers, Wilson A., Kansas City

N

Nakada, James Robert, St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Nash, Francis P., St. Louis
Nash, Helen E., St. Louis
Nash, Homer E., Jr., St. Louis
Nash, W. Hampton, St. Louis
Nathan, Lester J., St. Louis
Natoli, Cornelius A., St. Louis
Neal, M. Pinson, Columbia
Needels, Orval T., Kansas City
Neilson, Arthur W., St. Louis
Neilson, Arthur W., Jr., St. Louis
Neilson, Charles H., St. Louis
Nelson, Bentley A., Kansas City
Nelson, Charles S., Westphalia, Kansas
(Member Jackson County)
Nelson, Fred L., St. Joseph
Nemec, Stanley S., St. Louis

Ness, Carl K., St. Joseph
Nesselrode, John Harvey, Independence
Nester, Charles A., St. Louis
Netherton, George F., Cameron
Neu, Robert E., Long Beach, Calif.
(Member St. Louis County)
Neubeiser, Ben L., St. Charles
Neumann, James W., Garden City, Kans.
(Member West Central Counties)
Neun, William F., St. Louis
Newman, Harold G., St. Louis
Newman, Mary Jane, Cassville
Newman, Percy, St. Louis
Newport, Gerald, University City
Nibbe, Albert F., Bethany
Nichols, Charles E., St. Louis
Nichols, Frank J., Fulton
Nicholson, Ralph L., Excelsior Springs
Nickel, James F., St. Louis
Nickson, Charles E., Jr., Independence
Nicolai, Charles H., St. Louis
Nicolay, Kenneth S., Kansas City
Niedermeyer, Edward L., Tarkio
Niedermeyer, George J., St. Louis
Nienstedt, Elam J., Sikeston
Niesen, Frank Jos., St. Louis
Nigro, Dominic M., Kansas City
Nigro, E. Robert, Kansas City
Nigro, Joseph Albert, Kansas City
Nisbet, Eliga Bassett, Knoxville, Tenn.
(Member Lafayette-Ray Counties)
Nix, Winston K., Marshall
Nixon, Edward E., Gallatin
Noah, Joseph W., St. Louis
Nofles, James Wilbert, St. Louis
Nolan, Charles J., St. Louis
Noller, Henry W., St. Louis
Noltensmeyer, Milton N., Kansas City Kans.
(Member Jackson County)
Norman, Robert M., Ava
Northup, Glenn R., St. Louis
Norton, William H., St. Louis
Norval, Mildred A., St. Louis
Nuetzel, John A., St. Louis
Nunn, Pat Morris, Kansas City, Kansas
(Member Jackson County)
Nunnelly, Gordon M., Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis

O

Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Harry Francis, Mexico
O'Brien, James A., Muskogee, Okla.
(Member Greene County)
O'Brien, Leo Aloysius, Kansas City
O'Brien, Raymond W., Kansas City
O'Brien, Robert M., St. Louis
O'Connell, Frank A., Kansas City
O'Connell, Gerald Leo, Grandview
O'Connell, John, St. Louis County
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
Odell, Richard T., St. Louis
O'Deil, Timothy T., Oran
O'Donnell, Joseph V., St. Louis
O'Dowd, James A., St. Louis
Oehler, William F., Cape Girardeau
Oetter, Donald L., St. Louis
Ogilvie, John H., Gravois Mills
Oglevie, Rial R., Kansas City
Ogura, Joseph H., Ladue
O'Hearne, John Joseph, Kansas City
Ohmoto, Masao, St. Louis
O'Keefe, Joseph D., St. Louis
O'Leary, James L., St. Louis
Olive, George C., Neosho
Olmsted, William H., St. Louis
O'Malley, Eugene J., St. Louis
O'Malley, James Francis, Kansas City
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neil, James H., Kansas City
O'Neill, John B., St. Louis
Oppenheimer, Henry E., Clayton
O'Reilly, Daniel E., Clayton
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Osborne, Charles D., Sedalia
Osgood, George M., Prairie Village, Kansas
(Member Jackson County)
Ossman, Julian A., Jefferson City
O'Sullivan, George Andrew, St. Louis
Ott, Harold J., Maplewood
Ottensmeyer, Charles D., Overland
Otto, Thomas G., Cape Girardeau
Overesch, Harry B., Kansas City
Overholser, Milton David, Columbia
Owen, James W., Jr., St. Louis
Owen, Robert F., St. Louis
Owens, Graham J., Kansas City
Owens, Hugh H., Kansas City
Owens, Michael J., Kansas City
Owens, Richard L., Kansas City
Owens, Robert Henry, Kansas City
Ozar, Milton B., Kansas City

P

Paddock, Charles S., Joplin
Paddock, Richard, St. Louis
Padfield, Earl G., Jr., Kansas City
Page, Jesse W., Clayton
(Member Butler-Ripley-Wayne Counties)
Paine, Robert, St. Louis
Painter, Andrew E., Portageville
Painter, Lattie B., Jr., Portageville
Pakula, Sidney F., Kansas City
Palazzo, Frank A., St. Louis
Palenske, Robert L., Hornersville
Paletta, Francis X., St. Louis
Pallett, Harold A., Kansas City
Papp, Sandor D., Joplin
Parashak, Paul M., St. Louis
Parato, John M., St. Louis
Pareira, Morton D., Clayton
Paris, William H., St. Louis
Park, George M., Eureka
Park, William I., Jr., Springfield
Parker, Arthur C., Jr., Poplar Bluff
Parker, Elmer L., Kansas City
Parker, H. Graham, Platte City
Parker, Hubert M., Kansas City
Parker, Robert H., North Kansas City
Parker, Thomas W., University City
Parker, William, St. Louis
Parkhurst, Charles Leonard, Houstonia
Parks, Stephen, Bloomfield
Parsons, Ernest H., St. Louis
Parsons, Eugene O., Kansas City
Pascoe, James John, Nevada
Passanante, Bartholomew M., St. Louis
Passman, Harold, Kansas City
Pate, Otho S., North Kansas City
Patterson, Donald R., Joplin
Patterson, Grover Smith, Carthage
Patterson, John R., Kansas City
Patterson, William R., Warrensburg
Patterson, William Wallace, Kansas City
Patton, Leslie E., St. Louis
Pawol, S. E., St. Louis
Payne, Bryan T., Lexington
Payne, Meredith Jorstad, St. Louis
Pearl, John F., St. Clair
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Peck, Chester R., Jr., Kennett
Peckham, John W., St. Louis
(Member Mid-Missouri Counties)
Peden, Burnet W., Clayton
Peden, Joseph C., St. Louis
Peden, Joseph C., Jr., St. Louis
Peeler, James O., St. Louis
Peete, Don Carlos, Kansas City
Pelz, Mort D., St. Louis
Pendleton, George F., Kansas City
Penn, Robert McCulloch, Silex
Penney, David L., St. Louis
Penninger, William Holt, Springfield
Pennington, Francis E., St. Louis
Pennoyer, James, St. Louis
Perkins, Maxwell B., Willow Springs
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Perna, Vincent P., Columbia
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, David C., Mound City
Perry, H. Mitchell, Kirkwood
Perry, John M., Princeton
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Petersen, Harold E., St. Joseph
Peterson, Carl McKee, Kansas City
Peterson, George L., Kansas City
Peterson, Milton C., Kansas City
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
Petry, Ezra L., Kansas City
Peugnet, Hubert B., St. Louis
Pfaff, John, Jr., St. Louis
Pfeffer, Robert I., St. Joseph
Pfeifer, Oliver Conrad, St. Louis
Pfuetze, Edwin L., Kansas City
Phillips, Hanford, St. Louis
Phipps, George W., Caruthersville
Piccione, Leonard M., St. Louis
Pickard, Clarence Mott, Columbia
Pickard, Nicholas S., Kansas City
Pickens, E. Allen, Nevada
Pickens, Edgar E., Kansas City
Pickrell, Claude D., St. Louis
Pierron, John B., Kansas City
Pifer, Lawrence Harrison, St. Joseph
Pileggi, Felix A., North Kansas City
Pinsker, Oscar T., Overland Park, Kans.
(Member Jackson County)
Piper, August T., St. Louis
Piper, Donald K., Kansas City
Pipkin, Garrett F., Kansas City
Pittam, Radford F., Hutchinson, Kansas
(Member Jackson County)
Plag, Albert F., St. Louis
Platt, William Rady, St. Louis
Platz, John H., Carrollton
Plesons, John D., St. Louis
Ploehn, Emma, St. Louis
Plumlee, William C., Springfield
Plumpe, W. Tupper, St. Louis
Poff, Joseph H., Caruthersville
Poff, Nathan, Caruthersville
Poggemeier, William H., Jr., St. Charles
Polk, George M., Lee's Summit
Polk, John W., Springfield
Pollack, Maxwell A., St. Louis
Pollock, Leo Howard, Kansas City
Poor, Carl William, Neosho
Poorman, Bert A., Kansas City
Popovich, Paul J., St. Louis
Popp, Carl G., Sikeston
Porporis, Arthur A., St. Louis
Porter, Louis, Kansas City
Porter, Russell C., Tucson, Ariz.
(Member Clay County)
Porter, William James, Independence
Portuondo, Bonaventura C., St. Louis
Post, Cyril A., Poplar Bluff
Post, John P., Washington
Post, M. Hayward, St. Louis
Post, Winfred L., Joplin
Potashnick, Robert, St. Louis
Pote, Thomas B., St. Louis
Potter, Allen B., Bowling Green
(Member St. Louis Medical Society)
Potter, Caryl Ashby, Jr., St. Joseph
Potter, Lee G., Kansas City
Potter, Reese H., St. Louis
Potter, Thompson E., St. Joseph
Powell, Carl A., St. Louis
Powell, Earl A., St. Louis
Powell, Edwin M., Springfield
Powell, Nelson E., Kansas City
Powell, Rudolph V., St. Louis
Powers, John M., Kansas City
Powers, Pierce W., St. Louis
Powers, William E., St. Louis
Pranger, Sylvester Henry, St. Louis
Prater, Bill G., Springfield
Prentiss, Harry S., Kansas City
Presnell, Cleitus A., St. Louis
Press, Maurice Jerome, St. Louis
Preston, Albert, Jr., Kansas City
Price, Charles H., Cassville
Price, Kenneth C., St. Louis
Price, Robert P., St. Joseph
(Member Callaway County)
Printz, Joseph H., Kansas City
Printz, Otto Jack, Kansas City
Probstein, Jacob G., St. Louis
Proctor, Donald C., Sedalia
Proetz, Arthur W., St. Louis
Pruett, Burchard S., St. Louis
Pruett, Hubert S., St. Louis
Pucci, Gregory L., Kansas City
Puckett, Cordelia A., St. Louis
Pugh, Richard George, Independence
Pullen, Roscoe Leroy, Columbia
Purcell, Elmer M., Springfield
Purcell, Harry K., St. Louis
Putnam, John A., Carthage
Pyne, Herbert S., St. Louis

Q

Quer, Erich Alfred, Kansas City
Quintana, Manuel Maria, Perryville
Quistgard, Paul Cameron, Kansas City

R

Rachlin, Maxwell, Brentwood
Rader, Ada Brainard, Martin City
Rader, George B., St. Louis
Raemdonck, Alphonse J., St. Louis
Ragsdale, George Moss, Paris
Rainey, Robert, St. Louis
Rainwater, Elmer H., Springfield
Ramey, Ehret O., Kansas City
Ramos, John F., Jr., Kansas City

Ramos, Raoul L., Poplar Bluff
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Randall, Leslie, Licking
Rannie, Paul R., Independence
Rapp, Harold B., Cape Girardeau
Rathle, Henri, Valley Park
Rawlins, Fred E., Cape Girardeau
Rawlins, Kelly, Holden
Ready, James Hartigan, Florissant
Rector, Joe L., Jr., Kansas City
Redington, James C., Jr., Clayton
Redmond, William, St. Joseph
Reeder, Charles Clinton, New Madrid
Reese, A. Victor, Webster Groves
Reh, Edward P., St. Louis
Reich, Harry A., St. Louis
Reich, Oliver F., Kimmswick
Reichert, M. Cecelia, St. Louis
Reiches, Aaron J., St. Louis
Reichman, John J., Hannibal
Reid, James A., Marshall
Reid, William Ferguson, Richmond, Va.
(Member St. Louis Medical Society)
Reilly, Leo J., St. Louis
Reilly, Pierce J., St. Louis
Reineck, John A., St. Louis
Reinhard, Edward Humphrey, St. Louis
Reinhardt, George Robert, Kansas City
Reis, Carl J., St. Louis
Reiss, Eric, University City
Reister, Dorothy D., Kansas City
(Member St. Louis County)
Reister, Philip Douglas, Kansas City
Reitman, Stanley, St. Louis
Reitz, Carl H., Kansas City
Remley, George C., Kansas City
Rendleman, George F., St. Louis
Repetto, Albert M., St. Louis
Repp, Theodore J., St. Louis
Reser, Thomas S., Cole Camp
Reuter, Louis A., St. Louis
Revare, Paul, North Kansas City
Reynolds, Fred, St. Louis
Reynolds, Garland A., Cape Girardeau
Reynolds, James R., Neosho
Rhoades, Arthur B., Kansas City, Kans.
(Member Jackson County)
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Rice, Carl E., Hillsboro
Rice, Earl R., Ft. Lauderdale, Florida
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Rice, Grover C., Brunswick
Richards, Frank O., St. Louis
Richardson, Marion W., Kansas City
Richardson, Reginald G., Jefferson City
Richardson, William Robert, Union
Richman, Elmer, St. Louis
Richter, William B., Stockton
Ricketson, George M., Chelsea, Mass.
(Member Pemiscot County)
Riddell, Richard V., St. Joseph
Ridings, Harold Dewey, Cape Girardeau
Ries, Douglas A., St. Louis
Riffel, Gordon William, New York
(Member Henry County)
Rifkin, Shale M., St. Louis
Riggio, Salvatore N., St. Louis
Rignney, Levi M., Springfield
Riley, Fred P., Perryville
Riley, John J., St. Louis
Riley, Ralph D. St. Louis
Riley, Ralph Warren, Lexington
Riley, William H., St. Louis
Riller, Lowell E., Kansas City
Ringo, Henry J., St. Louis
Rinkel, Herbert J., Kansas City
Riordan, Lawrence M., St. Louis
Ritchie, Frances R., St. Louis
Ritter, Hubert A., St. Louis
Ritter, Raymond A., Cape Girardeau
Roberson, John H., Lilbourn
Roberts, Billy J., South Bend, Ind.
(Member South Central Counties)
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Roberts, Harold M., Kansas City
Roberts, John P., Kirkwood
Roberts, John R., St. Louis
Roberts, Lacy Marvin, Kansas City
(Member Clay County)
Roberts, Paul A., Sweet Springs
Roberts, Sam E., Kansas City
Robertson, Frank G., St. Louis
Robertson, George D., St. Louis
Robertson, LeRoy L., St. Louis
Robichaux, Eugene B., Excelsior Springs
Robichaux, Eugene C., Excelsior Springs
Robins, Eli, St. Louis
Robinson, Arthur W., Kansas City
Robinson, Edith C., St. Louis
Robinson, Edward E., Adrian
Robinson, Ernest Kip, Kansas City
Robinson, George G., Humansville
Robinson, G. Wilse, Jr., Kansas City
Robinson, John A., Edgerton
Robinson, William J., Kansas City
Robison, James Travis, Jr., Kansas City
Roblee, Melvin A., St. Louis
Roche, Maurice B., St. Louis
Rodeman, John M., Sedalia
Roden, J. S., Columbia
Rodes, Ned DeWitt, Columbia
Rodgers, Elrie P., Columbia
Rodgers, Samuel U., Kansas City
Roe, Allen N., Wentzville
(Member St. Louis Medical Society)
Roebber, Harry McDougal, Bonne Terre
Roehrs, Marvin E., Marshall
Rogers, Cyril H., St. Louis
Rogers, John Asa, University City
Rogers, John T., St. Joseph
Rohlfing, Edwin H., St. Louis
Rohlfing, Walter H., St. Louis
Roller, Merrill Joseph, Hannibal
Rollins, Harry D., Winona
Rolufs, Lloyd S., Kirkwood
Rolwing, E. Charles, Charleston
Romney, Douglas, St. Louis
Ronald, Douglas Charles, Butler
Roper, Stanley D., Ozark
Rose, Charles W., Kansas City
Rose, Dalton Keats, St. Louis
Rose, Frank H., Albany
Rosecan, Marvin, St. Louis
Rosen, Charles S., St. Louis
Rosen, Max, Springfield
Rosenbaum, Harry D., St. Louis
Rosenbaum, Herbert E., St. Louis
Rosenberg, Henry E., St. Louis
Rosenberg, Meyer B., Bakersfield, Calif.
(Member St. Louis Medical Society)
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Rosenthal, Irwin I., St. Joseph
Ross, Herman C., Brentwood
Rost, William B., St. Joseph
Roter, Alexander M., St. Charles
Roth, John J., St. Louis
Rother, Paul H., St. Charles
Rothman, David, St. Louis
Rothweiler, Robert J., St. Louis
Rotter, Julius C., St. Louis
Roufa, Joseph F., St. Louis
Roulhac, George E., St. Louis
Roundy, Collis I., St. Joseph
Rouse, David M., Mexico
Rouse, Ernest T., St. Louis
Rowlette, Avery Peck, Moberly
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Royce, James J., Noel
Royce, Robert K., St. Louis
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Royston, Grandison D., Hope, Ark.
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Rubnitz, Leon H., Kansas City
Ruddell, George W., St. Louis
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Rufe, John R., Kansas City
Ruff, Troy Eugene, Poplar Bluff
Ruhling, Rudy, St. Louis
Rumer, Donald Glenn, St. Louis
Rund, Emmet H., St. Louis
Rusk, Earl McD., New Bloomfield
Russell, Barbara E., Rolla
Russell, Earl D., Springfield
Russell, James M., Monett
Russell, Robert K., Raytown
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Rutledge, Paul E., Kirkwood
Rutledge, William J., Campbell
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Ryan, John Harold, St. Joseph
Ryan, John J., Clayton
Ryan, Robert E., St. Louis
Ryder, Gilbert E., Kansas City

S

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Sale, Llewellyn, Jr., St. Louis
Salisbury, William J., St. Louis
Salmon, William D., Jr., St. Louis
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Samuelson, Edward A., Kansas City
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Sanders, Harmon U., Jr., Independence
Sanders, Robert D., St. Louis
Sanders, Theodore E., St. Louis
Sanders, William F., Kansas City
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(Member Cooper County)
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Sargent, Alden P., Sikeston
Sargent, Frederick K., St. Louis
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Sassin, Edmond F., St. Louis
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Satterwhite, George R., Portland, Ore.
(Member St. Louis Medical Society)
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Sauer, Gordon C., Kansas City
Sauer, W. Nicholas, St. Louis
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Saylor, Robert King, Cleveland, Ohio
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Schaerrer, Hans, Kansas City
Schaerrer, William C., Kansas City
Schaper, Ernest H., St. Louis
Schattyn, Martyn, St. Louis
Schauffler, Robert M., Kansas City
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Scheer, George E., St. Louis
Scheff, Harold, St. Louis
Scherman, Victor E., St. Louis
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Schiffmacher, Jack E., Kansas City
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Schlicht-Collins, Mabelle B., Webb City
Schluer, Elmer P., St. Louis
Schlueter, Newell W., St. Louis
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Schmidt, Edmund M., St. Louis
Schmidt, Edwin H., St. Louis
Schmidt, Herbert H., Washington
Schmiemeier, Herman August, St. Louis
Schmiemeier, Roy H., Affton
Schmitz, Edgar F., St. Louis
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Schneider, Vincent A., St. Charles
Schnoebelen, Paul C., St. Louis
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Schooley, Renick C., Odessa
Schopp, Alvin C., St. Louis
Schorer, Edwin H., Kansas City
Schottman, Gerhard W., Jr., Kansas City
Schrepel, Herbert O., St. Louis
Schroeder, Henry A., St. Louis
Schroeder, Sidney O., Liberty
Schuchat, W. Louis, St. Louis
Schulte, Gregory A., Joplin
Schultz, Loraine E., Columbia
Schultz, Samuel, St. Louis
Schuman, Stanley H., St. Louis
Schuster, Joseph M., Jr., Cincinnati, Ohio
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Schutz, Richard B., Kansas City
Schwartz, Eugene J., Springfield
Schwartz, Frederick O., St. Louis
Schwartz, Henry G., St. Louis
Schwartz, Melvin M., St. Louis
Schwartzman, Bernard, St. Louis
Schweiss, John Francis, St. Louis
Schweitzer, Fred C., Jr., Springfield
Sciortino, Gaspare, St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Scorse, Sidney W., Joplin
Scott, Clive Douglas, Louisiana
Scott, Elijah A., St. James
Scott, Elwin P., St. Louis
Scott, Horace W., St. Louis
Scott, Henry F., Ormond Beach, Fla.
(Member St. Louis County)
Scott, James U., Harrisonville
Scott, Wendell G., Clayton
Seabaugh, D. Rusby, Cape Girardeau
Seabaugh, Dayton I. L., Jackson
Seabaugh, Loy R., Cape Girardeau
Seabaugh, Oda L., Cape Girardeau
Seabaugh, Ottis Dewey, Webster Groves
Seabaugh, William O. L., Cape Girardeau
Seabold, John Albert, St. Louis

Seddon, John W., St. Louis
See, William Bernard, Columbia
Seeley, James J., St. Louis
Seely, Clark W., Kansas City
Seib, George A., St. Louis
Seidel, Donald R., St. Louis
Senn, Emmett J., Herculaneum
Senne, Herbert C., St. Joseph
Sennott, John S., Jefferson City
Senor, Samuel Earl, St. Joseph
Senturia, Ben H., St. Louis
Senturia, Hyman R., St. Louis
Serkes, Kenneth D., St. Louis
Sertl, John D., St. Louis
Settle, Emmett B., Rock Port
Sevin, Omar R., Rockhall, Md.
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Sewell, Walter S., Springfield
Sewing, Arthur H., St. Louis
Sexauer, Arthur E., Ste. Genevieve
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Sexton, Elmer Edwin, St. Louis
Shackelford, Horace H., St. Louis
Shahan, Philip T., St. Louis
Shahan, William E., St. Louis
Shanahan, Eugene R., Caruthersville
Shaner, John F., St. Louis
Shapiro, Lazare Melvin, Kansas City
Shapleigh, John B., St. Louis
Sharp, Austin R., St. Louis
Shatz, Burton A., St. Louis
Shaw, Carvel Thomas, Hermann
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette
Sheahon, John A., Kansas City
Shecter, Nathan, Kansas City
Sheets, John S., St. Louis
Sheets, Martin E., St. Louis
Shelby, Mitchell H., Cape Girardeau
Shelden, Russell D., Kansas City
Sheldon, John, Kansas City
Shelton, Edward Olney, Eldon
Shen, Jerome T. Y., St. Louis
Shepherd, Charles Thomas, St. Louis
Sherard, Julius C., St. Louis
Sheridan, Edmund R., St. Louis
Sherman, Alfred I., St. Louis
Sherry, Sol, St. Louis
Sherwin, Charles S., St. Louis
Shevlin, Charles F., St. Joseph
Shifrin, Alexander, Kansas City
Shinkawa, Shigeo, St. Charles
Shireman, Kenneth L., Kansas City
Shirey, Arnold G., Hayti
Shobe, Frank O., St. Louis
Shofstall, Charles K., Kansas City
Shoss, Milton, Cape Girardeau
Shrader, E. Lee, St. Louis
Shreffler, Algie R., Tavernier, Fla.
(Member St. Louis Medical Society)
Shrout, Cecil B., Bunceton
Shuey, Herbert H., Kansas City
Shull, George Donald, Jefferson City
Shuman, Joseph S., St. Louis
Shumate, David L., Kansas City
Shumate, L. St. Clair, Reeds Spring
Shutt, Cleveland H., St. Louis
Shypper, Moses J., Kansas City
Siceluff, Joseph G., Springfield
Siddall, H. Stewart, Cincinnati, Ohio
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Siegel, Carl D., Sedalia
Siegel, Peter Vincent, Smithton
Siemers, George E., St. Louis
Siesener, Herbert H., St. Louis
Sievers, Edward Faville, St. Louis
Signorelli, Andrew Joseph, St. Louis
Silsby, Don H., Springfield
Silsby, Don James, Springfield
Silsby, Harry D., Springfield
Silverberg, Charles, St. Louis
Silvermintz, Saul D., Ladue
Simmons, Benjamin B., St. Joseph
Simmons, Leroy, Sarcoxie
Simms, Otho Monroe, St. Charles
Simon, Bettie H., St. Louis
Simon, David Leo, St. Louis
Simon, Jerome I., St. Louis
Simon, Sanford, Kansas City
Simon, Selig, St. Louis
Simpson, Eber, St. Louis
Simpson, Emerson L., Springfield
Simpson, Fred, Odessa, Texas
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Simpson, Guy L., St. Louis
Simpson, Lloyd, Columbia
Simril, Wayne A., Clayton
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Sinclair, Alexander B., Kansas City
Singleton, J. Milton, Kansas City
Sinkler, William H., St. Louis
Sisk, James C., Clayton
Sisson, Richard G., St. Louis
Skeffington, Mary Jane, St. Louis
Skilling, David M., Jr., St. Louis
Skillman, Robert K., Kansas City
Skinner, John Osman, Kansas City
Skinner, John Spalding, St. Louis
Skinnner, John T., Kansas City
Skoog, Andrew L., So. Pasadena, Calif.
(Member Jackson County)
Slaughter, Shelby C., Fredericktown
Slentz, Edwin Lawrence, Kansas City
Slentz, William A., Kansas City
Slickman, Robert A., Appleton City
Small, Walter L., Kansas City
Smart, Leon A., St. Louis
Smathers, John H., St. Louis
Smiley, William, St. Louis
Smit, Herbert M., St. Louis
Smith, Arthur B., Kansas City
Smith, Audra B., Sikeston
Smith, Benjamin F., Jr., Clayton
Smith, C. Souter, Springfield
Smith, Carl C., Moberly
Smith, Clifton, St. Joseph
Smith, Frank J., St. Louis
Smith, Garland F., St. Louis
Smith, George E., Kirkwood
Smith, Grafton A., Columbia
Smith, Herbert P., St. Louis
Smith, Hubert Eugene, Kansas City
Smith, Hugh R., St. Louis
Smith, Ira T., Kansas City
Smith, J. Earl, St. Louis
Smith, James O., Clinton
Smith, Jason Ned, Jr., Columbia
Smith, John R., St. Louis
Smith, Kathleen, St. Louis
Smith, Louis J., New Madrid
Smith, Milton, St. Louis
Smith, Robert M., St. Louis
Smith, Robert S., Portageville
Smith, Robert W., Marceline
Smith, Roland T., Joplin
Smith, Rollin H., West Plains
Smith, Sidney E., St. Louis
Smith, Stephen D., Columbia
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Smith, William J., Windsor
Smith, William Russell, Carthage
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Smull, Ned Willits, Kansas City, Kans.
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Snider, Samuel Harrison, Kansas City
Snyder, Edward N., St. Louis
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Sommer, Conrad, St. Louis
Sommer, Ross Baker, Brentwood
Soule, Samuel D., St. Louis
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Spears, Joe L., Cabool
Spelman, Archibald E., Smithville
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Spinzig, Edgar W., Kirkwood
Spitz, Milton A., Milwaukee, Wis.
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Spoeneman, Marlin C., St. Louis
Spoenemann, Walter H., St. Louis
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Stacy, Winton T., St. Joseph
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Stallard, Donald J., St. Joseph
Stamp, Warren C., St. Louis
Standley, Eugene Theodore, Columbia
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Stanze, Frank J., St. Louis
Starke, Helen, Kansas City
Starkloff, Gene B., St. Louis
Starkloff, Max, St. Louis
Statland, Harry, Kansas City
Statland, Morris, Kansas City
Staton, R. Hamilton, Carrollton
Stauffacher, C. Gordon, Sedalia
Stauffer, Harry B., Jefferson City
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Steele, Jack T., Ferguson
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Stegman, Elmer George, Raytown
Stein, Arthur Henry, Jr., St. Louis
Stein, Harry J., St. Louis
Stein, Leonard A., St. Louis
Steinbeck, Herbert Duckworth, Union
Steinbeck, Herbert F., St. Louis
Steinberg, Franz U., St. Louis
Steiner, Albert S., St. Louis
Steiner, Alexander J., St. Louis
Steinkamp, Ruth C., Little Rock, Ark.
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Stelmach, Walter Jack, Kansas City
Stephan, August P., Jefferson City
Stephens, LeRoy J., St. Louis
Stephens, Louis F., St. Louis
Stephens, William A., St. Louis
Stephenson, Hugh E., Jr., Columbia
Stergen, Nick E., St. Louis
Sterkel, Richard L., St. Louis
Sterling, Charles E., St. Louis
Sterling, John A., Maplewood
Stevens, Robert W., St. Louis
Stewart, Floyd, St. Louis
Stewart, Frances H., St. Louis
Stewart, John W., St. Louis
Stewart, Robert H., Sedalia
Stewart, R. Wendell, Springfield
Stewart, William James, Columbia
Stickle, Arthur W., St. Louis
Stickler, Ralph O., Kirksville
Stindel, Charles Ernst, Webster Groves
Stine, Dan G., Columbia
Stocking, Lyman C., Kirkwood
Stockton, Raymond W., Kansas City
Stockwell, A. Lloyd, Kansas City
Stockwell, Morgan U., Kansas City
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Stokes, Julius B., Excelsior Springs
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Stone, Charles A., St. Louis
Stone, William E., Boonville
Stotts, Charles Stephen, Kansas City
Stratemeier, Edward H., Kansas City
Strauchen, Gilbert W., Webster Groves
Strauss, Arthur E., St. Louis
Streetor, Roderick D., St. Louis
(Member Chariton-Macon-Monroe-Randolph Counties)
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Stricker, Emil A., St. James
Stricker, Harold C., Jefferson City
Strong, Richard M., Hannibal
Stryker, Garold V., St. Louis
Stuart, Byron M., Boonville
Stuart, Daniel D., Brunswick
Stude, William Carl, St. Louis
Stuebner, Roland W., Clayton
Stutsman, Albert C., St. Louis
Sudholt, Alfred F., Jr., St. Louis
Sugarbaker, Everett D., Jefferson City
Suggett, Finis C., Columbia
Sullivan, B. Hazard, Miami
Sullivan, Clement J., St. Louis
Sullivan, James F., St. Louis
Sullivan, William J., Providence, R. I.
(Member North Central Counties)
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Summers, Jacob H., Lebanon
Summers, John B., St. Louis
Summers, Joseph S., Jr., Jefferson City
Summers, Thomas F., St. Louis
Sunderman, Raymond C., St. Louis
Sundstrom, Frank D., Springfield
Susanka, William Dee, Affton
Susman, Noah, Columbia
(Member St. Louis Medical Society)
Sutherland, Gladys Pietri, Bethany
Sutphin, John B., Ferguson
Sutter, Richard A., St. Louis
Sutton, Charles E., Los Angeles, Calif.
(Member Cape Girardeau County)
Swafford, Melvin R., Cardwell
Swarm, Richard L., Bethesda, Md.
(Member St. Louis Medical Society)
Swartz, George K., St. Louis
Sweaney, Isaac F., Oregon
Sweany, Henry C., Mt. Vernon
Sweet, Herbert C., Webster Groves
Sweets, Henry H., Jr., Hannibal
Sweiger, James H., Maysville
Swekosky, Frank J., St. Louis
Swisher, Robert C., Kansas City
Switzer, Clyde, Grandview
Szabados, Ernest Daniel, Independence
Szymanski, Stanley R., Moberly

T

Tadlock, Baxter W., St. Joseph
Tahir, Mohammad, St. Joseph

Talbott, Hudson, Louisville, Ky.
(Member St. Louis Medical Society)
Tanaka, George M., St. Louis
Tanner, Robert H., Jefferson City
Tapper, Stephen M., St. Louis
Tarr, John R., Houston
Tarrasch, Ernest L., Springfield
Tarson, Solomon S., Kansas City
Tarver, Quinton, Kennett
Tarvydas, Francis, Edina
Tashma, Sigmund, St. Louis
Tasker, Charles B., Kansas City
Tate, Lloyd L., St. Louis
Taussig, Barrett L., St. Louis
Taylor, Byron H., Jr., Flat River
Taylor, Helen L., St. Louis
Taylor, Leo T., Neosho
Taylor, Leon A., Jefferson City
Taylor, Van William, Bonne Terre
Taylor, William E., Springfield
Teall, Raymond E., Kansas City
Teare, Max E., Wichita, Kans.
(Member Buchanan County)
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Teneglia, Eutimio D., St. Louis
Terrill, Robert S., Kansas City
Tess, Melvin J. H., St. Louis
Tesson, James Albert, Kansas City
Thale, Thomas, St. Louis
Theel, Otto W., Jr., Kansas City
Thiele, Belmont R., St. Louis
Thiele, George H., Kansas City
Thiele, O. K., Webster Groves
Thiessen, Edward Herman, Kansas City
Thoma, George E., Jr., St. Louis
Thomas, Charles S., St. Louis
Thomas, Christopher Y., Kansas City
Thomas, Forrest, St. Joseph
Thomas, Helen E., Columbia
Thomas, Horace E., Columbia
Thomas, Wilbur A., St. Louis
Thomasson, David Delzell, Springfield
Thomasson, Mary W., University City
Thomasson, Robert E., St. Louis
Thompson, Arthur M., St. Louis
Thompson, Charles Leslie, Kansas City
Thompson, Emma A. B., Columbia
(Member Grand River Counties)
Thompson, F. Gregg, Jr., St. Joseph
Thompson, J. William, St. Louis
Thompson, Lawrence D., St. Louis
Thompson, Ralph L., St. Louis
Threadgill, Jesse Mercer, Forsyth
Throgmorton, Howard B., Sikeston
Thurber, Claude M., Windsor
Thurman, Hill C., Parkville
Thym, Henry P., St. Louis
Tibbs, William A., Jr., St. Louis
Tichenor, Robert W., Sappington
Tietjen, Frederick Olin, Jefferson City
Tiffany, D. E., Mountain View
Tillman. Walter William, Jr., Springfield
Tindall, Robert N., St. Louis
Tinsley, John C., Jr., Columbia
Tippett, Jack C., St. Louis
Titterington, Paul F., St. Louis
Tjoflat, Oliver Eugene, St. Louis
Tobias, Norman, St. Louis
Todd, Thomas Britt, Nevada
Tomlinson, William Loren, St. Louis
Toms, Stephen, Washington, D. C.
(Member St. Louis Medical Society)
Tonelli, George L., St. Louis
Tooker, Charles W., St. Louis
Torin, Bernice Albert, University City
Towers, Orville W., St. Charles
Townsend, James A., Clayton
Townsend, Vincent F., Maplewood
Tracy, Herbert A., Belton
Treadway, W. W., Silex
Treiman, Robert C., St. Louis
Tremain, Ernest E., Maplewood
Tremain, Irl G., St. Louis
Tribble, Robert E., Chaffee
Trigg, Joseph F., St. Louis
Tripodi, Anthony M., Tacoma, Wash.
(Member St. Louis Medical Society)
Trippe, Harrison C., Kansas City
Trolinger. James H., Jackson
Trotter, Francis O., Jr., St. Louis
Trowbridge, Barnard C., Kansas City
Trowbridge, Ellsworth Haydn, Winter Park, Fla.
(Member Jackson County)
Trowbridge, Ellsworth H., Jr., Kansas City
Trueblood, Alva C., Jr., St. Louis
Trugly, Edith S., St. Louis
Trunko, Leo, Lemay
Tsang, John L. K., Springfield
Tucker, Eugene F., St. Louis
Tureen, Louis Leon, St. Louis
Turner, Glenn O., Springfield
Turner, James Herbert, Dexter
Turner, James K., St. Louis
Turner, Percy C., Kansas City
Turner, Rush, St. Louis
Turner, William F., Dexter
Tuthill, Herbert, Kansas City
Twedell, Donald Louis, St. Louis
Twin, Edward J., Kansas City
Twyman, Richard A., Kansas City
Tygett, Glenn J., Cape Girardeau
Tyler, Wendell H., St. Charles

U

Uhlemeyer, Henry A., Jr., St. Louis
Ulett, George Andrew, St. Louis
Ulett, Pearl C., St. Louis
Underwood, Dick Holland, Kansas City
Underwood, Harry A., Kansas City
Underwood, Johnson, Jr., Kansas City
Underwood, Millard K., Rolla
Underwood, Ross H., Kansas City
Unger, Harold, Kansas City
Unterberg, Hillel, St. Louis
Upshaw, Paul O., Springfield
Upsher, Albert E., Kansas City
Urban, Edgar Dale, Sikeston
Utterman, William F., Perryville
Uyeno, Frank S., Brentwood
(Member West Central Counties)

V

Vail, A. Denton, Springfield
Valach, Frank J., Brentwood
Valentine, Herbert S., Kansas City
Van Biber, James T., Independence
Van Buskirk, William C., Kansas City
Van Cleve, John D., Malden
Van Del, Dwight T., Kansas City
Vandiver, Virgil D., Chillicothe
Vandover, John T., St. Louis
Van Matre, R. M., Washington, D. C.
(Member St. Louis Medical Society)
Van Urk, Jules B., Carthage
Vatterott, Paul B., St. Ann
Vaughan, J. Russell, St. Louis
Vaughn, Arthur N., St. Louis
Venable, Howard P., St. Louis
Verda, Dominic J., St. Louis
Vermillion, Crofford O., St. Louis
Vescova, Paul C., Smithville
Vest, James C., St. Louis
Vezeau, Stephen, St. Louis
Vilmer, Charles, Kansas City
Vincent, Jack C., Kansas City
Vinyard, Jack L., Herlong, Calif.
(Member Clay County)
Vinyard, Paul, St. Louis
Virant, John A., St. Louis
Virden, C. Edgar, Kansas City
Virden, Herbert H., Kansas City
Vitale, Anthony J., St. Louis
Vitale, Nicholas S., St. Louis
Vitt, Alvin E., St. Louis
Vitt, Edwin F., St. Louis
Viviano, Joseph G., St. Louis
Vizgird, Joseph J., St. Louis
Vogel, Eugene A., St. Louis
Vogt, William H., Jr., St. Louis
Vohs, Carl F., St. Louis
Vollmar, Clarence J., Webster Groves
Von Kaenel, Joseph E., St. Louis
Votaw, Robert E., St. Louis
Voth, Harold W., Kansas City
Vournas, Christopher G., St. Louis

W

Wachter, Harry E., St. Joseph
Wacker, Leo L., St. Louis
Waddle, Theodore L., Dexter
Wade, Frederick E., Kansas City
Wade, James Paul, St. Louis
Wadlow, Ernest E., St. Joseph
Wagenbach, William F., St. Louis
Waggoner, Charles M., Columbia
Waggoner, Sharon E., St. Joseph
Waitt, Paul M., St. Louis
Wakefield, Franklin, Jr., Kansas City
Wakeman, Jasper Newton, Springfield
Wald, Stanley M., St. Louis
Walden, Richard, Bourbon
Walker, Ambrose T., Mammoth Spring, Ark.
(Member South Central Counties)
Walker, George S., Clinton
Walker, Harvey, Jr., St. Louis
Walker, Hugh B., Clinton
Walker, James Charles, Kansas City
Walker, John W., Kansas City
Walker, Lionel Elcan, Hanford, Calif.
(Member South Central Counties)
Walker, Paul William, Joplin
Walker, Willard B., Clayton
Walker, William E., La Monte
Wall, Albert, St. Louis
Wall, Arthur H., Sierra Madre, Calif.
(Member Jackson County)
Wall, Emmett D., St. Louis
Wall, Harry C., Kansas City
Wall, Leonard A., Kansas City
Wallace, Edgar S., Mexico
Walsh, Theodore E., St. Louis
Walsh, Thomas J., St. Louis
Walsh, William Timothy, Kingwood, W. Va.
(Member Greene County)
Walter, Archie L., Sedalia
Walters, Harold E., St. Louis
Walters, John H., Columbia
Walters, Laura, Columbia
Walters, William H., St. Louis
Walterschied, John H., Hannibal
Walthall, Damon O., Kansas City
Walther, Roy A., Jr., Overland
Walton, Franklin E., St. Louis
Walton, Marion C., Festus
Ward, Joe, Lexington
Ward, Robert L., Centralia
Ward, Robert Leslie, Kansas City
Warner, George K., St. Louis
Warner, Robert G., St. Louis
Warres, Herbert Leonard, St. Joseph
Washburn, J. Loren, Versailles
Washington, Edward Lee, Columbia
Wasserman, Helman C., St. Louis
Waterman, Franklin M., Liberty
Waters, E. Burton, Kirkwood
Waters, Hugh R., St. Louis
Watkins, George L., Jr., Farmington
Watson, Cecil L., Lexington
Watson, Ethel, Independence
Wattenberg, Carl A., St. Louis
Watts, Byron E., Jefferson City
Waxman, David, Kansas City
Waxman, Jane Zabel, Kansas City
Webb, Leslie R., Jr., Springfield
Webb, Marion A., St. Louis
Webb, Paul B., St. Louis
Webb, Paul B., Jr., St. Louis
Webb, Paul Kingsley, St. Louis
Weber, Eugene P., St. Louis
Weber, Sol, St. Louis
Weber, William K., Normandy
Webster, Joseph G., Kansas City
Webster, Roger W., Hayward, Calif.
(Member Jasper County)
Weed, Randal W., St. Joseph
Weeks, George Robert, Minneapolis, Minn.
(Member Mid-Missouri Counties)
Weger, Carl C., Keytesville
Wegner, Carl R., St. Louis
Weiford, Edward C., Kansas City
Weiler, Thomas J., St. Louis
Weinel, Francis G., St. Louis
Weinhaus, Robert S., St. Louis
Weinsberg, William C., St. Louis
Weintraub, Solomon A., St. Louis
Weir, Don C., St. Louis
Weir, Royal A., St. Louis
Weis, Matthew W., St. Louis
Weisbrod, Wilfred Bernard, St. Louis
Weisman, Renate Dohrn, St. Ann
Weisman, Sol, St. Louis
Weiss, James M. A., University City
Weiss, Richard S., St. Louis
Weitman, Maximiliam, St. Louis
Welch, Hooper W., St. Louis
Welker, Joseph E., Kansas City
Well, Julius W., Palmyra
Welsh, Laurence C., St. Louis
Weltscheff, Christo Atanas, Kansas City
Wempe, G. Raymond, Maryville
Wenneker, Alvin S., St. Louis
Wennerman, Sam F., St. Louis
Wentzel, Louis Robert, St. Louis
Wepprich, Michael S., Washington
Werner, Dean F., North Kansas City
Werner, Franklin C., Kansas City
Werner, William A., St. Louis
Werth, Duncan Scott, Glendale
West, Joseph W., St. Louis
Westerman, Henry C., University City
Westphaelinger, Henry F., St. Louis
Westrup, Arthur W., Webster Groves
Westrup, Ellsworth A., Kirkwood
Wetzel, Fred S., Jr., Carthage
Weyerich, Leon F., St. Louis
Wheat, Myron W., Jr., St. Louis
Wheeler, Charles B., Kansas City
Wheeler, John H., Kansas City
Whitaker, Topsy T. H., East Prairie
White, Charles H., Kansas City

White, George A., Kansas City
White, Orville O., St. Louis
White, R. Ned, Springfield
White, Stoughton F., Kansas City
White, William H., Clayton
White, William H., Jr., Clayton
Whitehead, Frank F., Neosho
Whiteman, John R., Kansas City
Whitener, Paul Rowland, St. Ann
Whitman, Doyle C., Kansas City
Whitmore, J. Stewart, Kansas City
Whitsell, John C., St. Joseph
Whitsell, Ora Earl, St. Joseph
Whitten, Marion F., Carthage
Whittico, James M., St. Louis
Wiatt, William S., La Jolla, Calif.
(Member St. Louis Medical Society)
Wicks, Mary R., Berkeley, Calif.
(Member St. Louis Medical Society)
Wiedershine, Leonard J., St. Louis
Wiegand, Herbert C., St. Louis
Wieman, Harry K., Joplin
Wien, Irving A., Kansas City
Wiener, Meyer, Coronado, Calif.
(Member St. Louis Medical Society)
Wiese, Harry W., St. Louis
Wiggins, Roland L., Columbia
Wilbur, Ronald E., Cheyenne, Wyo.
(Member Clinton County)
Wilcox, Claude V., St. Louis
Wilcoxen, William B., Bowling Green
Wild, Aloysius Arthur, St. Louis
Wiles, Jack Nelson, West Plains
Wilhelm, Warren F., Kansas City
Wilhelmi, Otto J., St. Louis
Wilkinson, Everett A., Kansas City
Will, Leo Archibald, St. Louis
Williams, Charles S., Malden
Williams, Delon A., Kansas City
Williams, Edward B., Jr., St. Louis
Williams, Frank Richard, Springfield
Williams, John W., Oak Grove
Williams, John W., Springfield
Williams, John Wood, Jr., Springfield
Williams, Joseph C., Jr., Kansas City
Williams, Luke E., Kansas City
Williams, Ray D., St. Louis
Williams, Robert S., Mexico
Williams, Robert A., Phillips, Texas
(Member Jackson County)
Williams, Starks J., Kansas City
Williams, Vincent T., Kansas City
Williamson, George L., Kansas City
Williamson, Oscar E., St. Louis
Williamson, Walter E., St. Louis
Willis, Norman Earl, Poplar Bluff
Willits, Lyle G., Kansas City
Willman, Vallee L., St. Louis
Willoughby, James W., Liberty
Willoughby, Jean B., Kansas City
Willumsen, Henry C., St. Joseph
Wilson, Alice H., Joplin
Wilson, Charles F., Cape Girardeau
Wilson, Clifford C., Kansas City
Wilson, Daniel R., Mt. Vernon
Wilson, Fred K., Winston
Wilson, Hester J., Kansas City
Wilson, Hugh M., St. Louis
Wilson, Keith S., St. Louis
Wilson, Kenneth O., St. Louis
Wilson, Loys C., Kennett
Wilson, Virgil R., Rosendale
Wilucki, Leo E., St. Louis
Wilucki, Melvin R., St. Louis
Wimber, Thomas C., St. Louis
Wimp, Jesse J., Kirksville
Windmiller, Myrl E., Columbia
Winer, Herbert J., Kansas City
Winkelman, Esther B., Kansas City
Winn, George W., Boonville
Winokur, George, St. Louis
Winston, Bernard H., Kansas City
Winter, Tyrus D., St. Louis
Winterer, Roland A., St. Louis
Wippo, Edgar W., St. Louis
Wirthlin, Edward H., St. Louis
Wise, George Warren, Kansas City
Wise, Gordon F., Springfield
Wissmath, Frank S., Clayton
Wissner, Seth, Clayton
Withers, Orval Raymond, Kansas City
Withrow, John Blake, North Kansas City
Witt, Clyde M., St. Louis
Witten, David M., Rochester, Minn.
(Member Grand River Counties)
Wittler, Harry A., Brentwood
Wolf, Jack W., Kansas City
Wolff, Paul G., Cape Girardeau
Woltzen, Samuel W., Clinton
Womble, James G., Augusta, Ga.
(Member St. Louis Medical Society)
Wommack, Fred L., Crane
Wood, Bennett R., St. Louis
Wood, George F., Fulton
Wood, George H., Carthage
Wood, James A., Clayton
Wood, Laurence E., Kansas City
Wood, William Warren, Springfield
Woodruff, Frederick E., St. Louis
Woods, Harold V., Independence
Woods, Walton Clay, Parkville
Wooldridge, Bart F., Joplin
Wooldridge, W. E., Springfield
Woolf, Ralph B., St. Louis
Woolsey, Robert D., St. Louis
Workman, George W., Hermann
Worley, Charles A., Sweet Springs
Wortmann, Robert F., Kansas City
Wotawa, William J., St. Louis
Wray, Rolla B., Nevada
Wright, George Warren, Webb City
Wright, Robert Paul, Kansas City
Wu, William Q., Kansas City
Wulff, George J. L., Jr., St. Louis
Wyatt, Lois C., Kirkwood

Y

Yaeger, Gerald A., St. Louis
Yancey, Daniel L., Springfield
Yanow, Mitchell, Clayton
Yates, J. Lewis, Mt. Vernon
Yore, Richard William, St. Louis
York, William Bransford, Sarcoxie
Yoskit, Harry, Festus
Yost, Walter B., Hinsdale, Ill.
(Member St. Louis Medical Society)
Young, Calvin C., Jr., Joplin
Young, James E., Kansas City
Young, Jesse W., Kansas City, Kansas
(Member Jackson County)
Young, John S., St. Louis
Young, Leo P., St. Louis
Young, Robert H., Moberly
Younge, Walter A., St. Louis
Younger, Anita, St. Louis
Younger, Ernest, St. Louis
Youngman, George A., North Little Rock, Ark.
(Member St. Louis Medical Society)
Yuan, Louis S. K., St. Louis

Z

Zacharias, David L., Kansas City
(Member Clay County)
Zahorsky, John, Steelville
(Member St. Louis Medical Society)
Zahorsky, Theodore S., St. Louis
Zahrt, Frank H., Princeton
Zeffren, Joel Lester, Bronx, N. Y.
(Member St. Louis Medical Society)
Zeinert, Oliver B., University City
Zeitler, Walter A., St. Louis
Zeitler, William T., St. Louis
Zellermayer, Jacob, Kansas City
Zentay, Paul J., St. Louis
Zich, Walter J., St. Louis
Ziegelmeyer, John S., St. Louis
Ziegler, William Henry, Boonville
Zillgitt, George H., St. Louis
Zimmerman, Joseph A., Kennett
Zimmermann, Carl A. W., Cape Girardeau
Zingale, Frank G., St. Louis
Zink, Oscar C., Clayton
Zoglin, Nathan, Kansas City
Zuber, Harold V., Kansas City
Zuckner, Jack, St. Louis
Zwart, Claude H., St. Louis

List of Members by County Societies

ADAIR COUNTY
(North Central Counties Medical Society)

ANDREW COUNTY MEDICAL SOCIETY

Baker, Warren C., Savannah
Holliday, Morgan Lee, Fillmore
Kelley, Gilbert B., Savannah
Kelley, Ralph R., Savannah
Long, Forrest C., Savannah
Wilson, Virgil R., Rosendale

ATCHINSON COUNTY
(Nodaway-Atchinson-Gentry-Worth County Medical Society)

AUDRAIN COUNTY MEDICAL SOCIETY

Bland, Warren W., Vandalia
Coil, Paul E., Mexico
Davis, Leonard L., Jr., Mexico
Dwyer, Thomas L., Mexico
Ector, Henry J., Mexico
Epple, Kathryn C., Mexico
Epple, Lawrence K., Mexico
Gantt, Ernest S., Jr., Mexico
Garcia, Charles L., Mexico
Jolley, J. Frank, Mexico
Jolly, Benjamin N., Mexico
Jolly, William H., Mexico
Kallenbach, G. P., Mexico
Lankford, Harold D., Mexico
O'Brien, Harry F., Mexico
Rodes, Ned D., Columbia
Rouse, David M., Mexico
Wallace, Edgar S., Mexico
Williams, Robert S., Mexico

BARRY COUNTY
(Ozarks County Medical Society)

BARTON-DADE COUNTY MEDICAL SOCIETY

Arnold, Herbert M., Lamar
Bickel, Vern T., Lamar
Cain, Alvin R., Lamar
Carroll, Thomas W., Lamar
Duckett, Claude E., Lamar
Guldner, Edmond, Lamar
Heilbrunn, Max, Lockwood
Knapp, Rudolf, Golden City
Locker, George E., Iantha
McNeel, Lee A., Jr., Greenfield

BATES COUNTY
(West Central Missouri Medical Society)

BENTON COUNTY MEDICAL SOCIETY

Logan, James A., Warsaw
Reser, Thomas S., Cole Camp

BOLLINGER COUNTY
(Unorganized)

BOONE COUNTY MEDICAL SOCIETY
(Columbia)

Allen, Horace E., Professional Bldg.
Allen, Joseph E., State Cancer Hospital
Anast, C. S., 308 Thilly Ave.
Baker, James M., 16 South 10th St.
Baker, Thomas J., University of Missouri
Battersby, Richard S., 113 Westwood Ave.
Bealer, Louis A., Centralia
Black, Samuel P. W., 108 S. Glenwood
Bolner, Anne U., University of Missouri
Brooke, Clement E., 501 Edgewood Ave.
Bruner, Claude R., Professional Bldg.
Bumgarner, James E., 7 Orchard Court
Bumgarner, Roger W., 1723 Amelia St.
Burek, A. W., University of Missouri
Burns, Thomas W., 106 Westwood Ave.
Chalkley, Judson I., Professional Bldg.
Chiasson, E. Chaille, 412 Guitar Bldg.
Cooper, Maurice E., 8 Wayne Road
Cope, James C., Professional Bldg.
Darnell, Thomas F. B., Professional Bldg.
Denninghoff, James C., 202 S. 10th St.
Dietrich, Karl D., Professional Bldg.
Evans, Alden McC., Ellis Fischel State Cancer Hospital
Flynn, Joseph E., University of Missouri
Freeman, R., 811 Cherry St.
Fuchs, George J., Jr., 9 Hickory Hill Dr.
Galeota, William R., 21 Westridge Dr.
Garrett, Glen H., Professional Bldg.
Gaunt, William D., University of Missouri
Griffith, Harry M., 11 S. 8th St.
Hall, John, Ashland
Hardwicke, Henry, Division of Health, Jefferson City
Hepner, Walter R., Jr., 1112 W. Broadway
Hitchcock, Waldo P., Columbia
Jackson, Robert L., University of Missouri
Johnson, Richard E., Ellis Fischel State Cancer Hospital
Keats, Theodore E., 624 Lakeshore Dr.
Keown, Kenneth K., University of Missouri
Killough, John H., University of Missouri
Lachance, Leopold, Centralia
Ladenson, Roland P., 16 S. 10th St.
Lamke, Charles M., Professional Bldg.
Leech, Charles A., 417 Guitar Bldg.
Leeper, Claude K., University of Missouri
Lewis, Ray B., 112 Park Hill
Lodwick, Gwilym S., 1607 University Ave.
Logue, John, 516 Crestland St.
Lowney, John F., University of Missouri
McElroy, Glenn L., Professional Bldg.
Martt, Jack M., University of Missouri
Miller, Leroy J., Guitar Bldg.
Modlin, John J., 310 Thilly Ave.
Neal, M. Pinson, University of Missouri
Overholser, Milton D., University of Missouri
Perna, Vincent P., 204 Medical Science Bldg.
Pickard, Clarence M., 1 West Blvd., N.
Pullen, Roscoe L., University of Missouri
Roden, J. S., 1602 Bass Ave.
Rodgers, Elrie P., Box 157
Scheuber, Charles, 237 Long Rd., San Antonio, Texas
Schewe, Elmer J., Jr., Route 6
Schultz, Loraine E., Boone County Hospital
See, William B., Professional Bldg.
Simpson, Fred, 1200 E. 43rd St., Odessa, Texas
Simpson, Lloyd, 411 Stewart Rd.
Smith, Grafton A., 3001 West Blvd., S.
Smith, Jason M., Jr., 513 West Blvd., S.
Smith, Stephen D., 1404 E. Broadway
Standley, Eugene T., University of Missouri
Stephenson, Hugh E., Jr., University of Missouri
Stewart, William J., Professional Bldg.
Stine, Dan G., 9 Francis Drive
Suggett, Finis C., 805 Broadway
Thomas, Helen E. Y., Route 3
Thomas, Horace E., Professional Bldg.
Tinsley, John C., Jr., 16 S. 10th St.
Waggoner, Charles M., Professional Bldg.
Walters, John H., Guitar Bldg.
Walters, Laura, Guitar Bldg.
Ward, Robert L., Centralia
Washington, Edward L., Professional Bldg.
Wiggins, Roland L., 201 N. 3rd St.
Windmiller, Myrl E., 401 Guitar Bldg.

BUCHANAN COUNTY MEDICAL SOCIETY
(St. Joseph)

Allain, J. J., 902 Edmond St.
Allaman, John M., 439 Acacia Drive, Sarasota, Fla.
Ames, William H., 902 Edmond St.
Beck, Leroi, 1618 N. 3rd St.
Beck, Paul M., 409 Kirkpatrick Bldg.
Benson, Scott C., 324 N. 6th St.
Berney, Francis J., 1225 N. 10th St.
Boteler, George McC., 303 Howitt Bldg.
Bristow, Robert B., Physicians & Surgeons Bldg.
Butler, E. F., 902 Edmond St.
Carpenter, George T., 902 Edmond St.
Chiarottino, Joseph F., Doctors Bldg.
Christ, Martin H., 6106 King Hill Ave.
Conrad, Robert W., 404 Tootle Bldg.
Craig, Owen W. D., 405 Tootle Bldg.
Dawson, Orville L., 701 Keokuk, Iowa City, Ia.
Day, Maxwell, Schneider Bldg.
DuMont, Clement C., 1905 Francis St.
Ferguson, Luther J., 723½ Felix St.
Fisher, Joseph L., 824 Edmond St.
Forgrave, John R., 420 N. 8th St.
Forgrave, Leon P., 420 N. 8th St.
Forman, George W., P. O. Box 747
Fuson, Levi H., Kirkpatrick Bldg.
Grant, Claude S., Doctors Bldg.
Greenberg, Charles, Physicians & Surgeons Bldg.
Grimes, M. E., Kirkpatrick Bldg.
Handler, Eric, Physicians & Surgeons Bldg.
Harner, Casper G., 902 Edmond St.
Herman, Allen I., 301 Physicians & Surgeons Bldg.
Howden, Thomas L., 407 Kirkpatrick Bldg.
Hughes, Judson M., Kirkpatrick Bldg.
Hull, Walter S., Faucett
Hunt, William J., 2600 Pacific St.
Ide, Lucien W., P. O. Box 747
Kieber, Robert W., 317 Kirkpatrick Bldg.
Knepper, P. A., Box 747
Kulowski, Jacob, 415 Corby Bldg.
Lau, Gustav A., 217 Kirkpatrick Bldg.
McDaniel, John R., 902 Edmond St.
McDonald, Wilbur P., 301 N. 8th St.
McGlothlan, Arthur B., 821 N. 24th St.
Magnin, Richard L., Physicians & Surgeons Bldg.
Martin, John N., Physicians & Surgeons Bldg.
Meluney, S. E., 214 Kirkpatrick Bldg.
Minton, Robert S., 705 Corby Bldg.
Moen, Berwyn H., 902 Edmond St.
Morroway, James H., State Hospital 2
Morse, Marvin, 2702 Faraon St.
Mothershead, John L., 2603 Frederick St.
Muench, Albert H., Physicians & Surgeons Bldg.
Mullinax, Orr, State Hospital 2
Mundy, Homer F., 2801 Sacramento St.
Nelson, Fred L., 902 Edmond St.
Ness, Carl K., 902 Edmond St.
O'Connor, William B., Kirkpatrick Bldg.
Petersen, H. E., Kirkpatrick Bldg.
Pfeffer, Robert I., 1915 N. 29th St.
Pifer, Lawrence H., 1302 Faraon St.
Potter, Caryl A., Jr., Physicians & Surgeons Bldg.
Potter, Thompson E., 731 Faraon St.
Redmond, William, 411 Corby Bldg.
Riddell, Richard V., 902 Edmond St.
Rogers, John T., 2502 Ashland Ave.
Rosenthal, Irwin I., 2715 Union St.
Rost, William B., 2221 N. W. Extension Blvd.
Roundy, Collis I., Kirkpatrick Bldg.
Ryan, John H., 301 N. 8th St.
Saferstein, T. Harry, 2903 Sherman St.
Senne, Herbert C., Physicians & Surgeons Bldg.
Senor, Samuel E., 722½ Francis St.
Shevlin, Charles F., 902 Edmond St.
Simmons, Benjamin B., 801½ Francis St.
Smith, Clifton, 2502 Faraon St.
Stacy, Winton T., 900 Ashland Court
Stallard, Donald J., 902 Edmond St.
Tadlock, Baxter W., 2727 Jule St.
Tahir, Mohammad, Box 66, Wyatt Park
Teare, Max E., 1520 S. Green St., Wichita, Kans.
Thomas, Forrest, State Hospital 2
Thompson, F. Gregg, Jr., P. O. Box 747
Wachter, Harry E., Kirkpatrick Bldg.
Wadlow, Ernest E., Kirkpatrick Bldg.
Waggoner, Sharon E., 301 Illinois Ave.
Warres, Herbert L., 902 Edmond St.
Weed, Randal W., 824 Edmond St.
Whitsell, John C., 824 Edmond St.
Whitsell, Ora E., 824 Edmond St.
Willumsen, Henry C., 902 Edmond St.

BUTLER-RIPLEY-WAYNE COUNTY MEDICAL SOCIETY
(Poplar Bluff)

Barbour, Marvin R., Kneibert Clinic
Baskett, Edgar D., 3420 Queen St., St. Petersburg, Fla.
Biggs, Fred J., Jr., Kneibert Clinic
Brandon, Walter L., P. O. Box 407
Brookreson, Alton F., 321 Oak St.
Canlas, Emilio Munioz, Veteran's Hospital
Clay, Hampson S., 218 N. Broadway

Cline, Edward W., Butler County Health Center
Cline, Harold H., Piedmont
Dinelli, Frank E., 215 Oak St.
Engelhardt, Robert C., Kneibert Clinic
Gernstetter, Sangwill L., P. O. Box 473
Harwell, James L., 203 S. Main St.
Harwell, J. Lester, 1311 N. Main
Henrickson, Hardin M., 215 Oak St.
Henrickson, Hardin O., 215 Oak St.
Henrickson, William E., Poplar Bluff Hospital
Johnson, Frank C., Doniphan
Kneibert, Fred L., Kneibert Clinic
Loughead, John R., W. Maude St.
McPheeters, James W., Sr., 330 N. 2nd St.
McPheeters, J. W., Jr., 330 N. 2nd St.
Macauley, Bernard J., 215 Oak St.
Malinoski, Mitchell V., Veterans Hospital
Markel, Arthur D., Kneibert Clinic
May, Albert L., Jr., 330 N. 2nd St.
Page, Jesse W., St. Louis County Hospital, Clayton, 5
Parker, Arthur C., Jr., Kneibert Clinic
Post, Cyril A., 123 S. Broadway
Ruff, Troy E., Kneibert Clinic
Willis, Norman E., 218 N. Broadway

CALDWELL COUNTY
(Grand River County Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY

Baur, Alfred K., State Hospital 1, Fulton
Brewer, Tom, 607 Court St., Fulton
Brown, John J., 101 E. 6th St., Fulton
Cremer, William J., State Hospital 1, Fulton
Crews, Robert N., 612 Court St.. Fulton
Durst, Henry, 610 Court St., Fulton
Freund, H. G., State Hospital 1, Fulton
Gish, Rutledge, 5 E. 5th St., Fulton
Hall, Robert G., 4406 McPherson Ave., St. Louis
Hill, James Eldon, 607 Court St., Fulton
Hunter, James R., Address Unknown
Johnson, Tom L., 407 Court St., Fulton
Kepler, Earl C., State Hospital 1, Fulton
McCubbin, J. Burleigh, 531 E. 20th St., New York 10, N. Y.
Nichols, Frank J., State Hospital 1, Fulton
Price, Robert P., State Hospital 2, St. Joseph
Rusk, Earl McD., New Bloomfield
Wood, George F., 614 Market St., Fulton

CAMDEN COUNTY

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY
(Cape Girardeau)

Ashley, Hugh V., 711 Broadway
Ashley, Hugh, Jr., 711 Broadway
Bahn, Charles F., 1902 W. Broadway
Barnes, Seth S., 1854 Broadway
Blaylock, Richard D., 219 W. Mary, Jackson
Breece, Grady L., Jr., Marble Hill
Campbell, Edward D., 937 Broadway
Cochran, Jo R., 709 Broadway
Crites, Edward, Sedgewickville
Crowe, John T., 937 Broadway
Drace, James J., 903 Bellevue St.
Elrod, Dennis B., 1912 Broadway
Estes, Albert M., 714 Broadway
Ford, Walter W., Gordonville
Fuerth, Arthur L., Route 1
Hall, Frank W., 826 Themis St.
Herbert, Charles T., 824 Good Hope St.
Hoxworth, Gerald M., 120 Sheridan St.
Jaeger, Joseph N., 208 S. High St.
Juden, Alexander G., 4 S. Spanish St.
Kasten, Melvin C., 1453 Themis St.
Keim, John H., 230 N. Sprigg St.
Kinder, James A., 937 Broadway
Kratz, Paul E., 1912 Broadway
Lovinggood, Thomas A., 649 Sylvan Lane
McDonald, Eugene F., 125 Court St., Jackson
McGinty, Charles P., 1912 Broadway
Nunnelly, Gordon M., 937 Broadway
Nussbaum, Paul B., 1758 Broadway
Oehler, William F., 234 N. Middle St.
Otto, Thomas G., 1912 Broadway
Rapp, Harold B., 1011 N. Henderson
Rawlins, Fred E., 1404 Perryville St.
Reynolds, Garland A., 826 Themis St.
Ridings, Harold D., 937 Broadway
Ritter, Raymond A., 1912 Broadway
Seabaugh, Dayton I. L., Jackson
Seabaugh, D. Rusby, 219 N. Pacific St.
Seabaugh, L. R., 219 N. Pacific St.
Seabaugh, Oda L., 24 N. Sprigg St.
Seabaugh, William O. L., 24 N. Sprigg St.
Shelby, Mitchell H., 1250 Normal St.
Shoss, Milton, Medical Arts Bldg.
Sutton, Charles E., 351 S. Fuller St., Los Angeles 36, Calif.
Trolinger, J. H., 122 S. High St., Jackson
Tygett, Glenn J.. 215 N. Sprigg St.
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway
Zimmermann, Carl A. W., Oakenwold

CARROLL COUNTY
(Grand River Medical Society)

CARTER-SHANNON COUNTY MEDICAL

Rollins, H. D., Winona

CASS COUNTY
(West Central Missouri Medical Society)

CEDAR COUNTY
(West Central Missouri Medical Society)

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Baker, Josephine D., 614 Fisk St., Moberly
Barnett, Floyd A., Paris
Buck, Ulysses G., Rothville
Campbell, James E., Macon
Chute, W. Deward, Moberly
Cohrs, Clarence C., Moberly
Collins, Gretchen D., Macon
Dreyer, Philip V., Huntsville
Eggleston, Donald E., Macon
Fellows, William W., 4200 Cathedral Ave., N.W., Washington, D. C.
Fleming, Jacob W., Jr., Moberly
Fleming, Thomas S., Moberly
Hardy, John W., 1326 Platinum St., Butte, Mont.
Harms, Florian L., Salisbury
Hasson, Robert, Moberly
Hawkins, George W., Salisbury
Huber, Lasley E., Moberly
Johnson, Edward M., 9408 Veck Lane, El Paso, Tex
McMurtry, Leonard K., Moberly
Miller, D. Herbert, Veterans Hospital. Montgomery, Ala.
Miller, Howard S., Macon
Ragsdale, George M., Paris
Rice, Grover C., Brunswick
Rowlette, A. P., Moberly
Smith, Carl C., Moberly
Streetor, Roderick D., 1332 Blackstone Ave., St. Louis 12
Stuart, Daniel D., Brunswick
Szymanski, Stanley R., Moberly
Weger, Carl C., Keytesville
Young, Robert H., Moberly

CHRISTIAN COUNTY
(Ozarks County Medical Society)

CLARK COUNTY
(Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Aks, Daniel, Smithville
Baird, J. Edward, Excelsior Springs
Bates, George C., 3329 Mohawk Lane, Kansas City
Boone, Daniel S., 5530 N. Spruce St., N. Kansas City
Bowles, Richard P., 112 N. Water St., Liberty
Bruce, Paul C., 152 Hi-Way, Liberty
Casady, Gilbert N., Virginia Mason Hospital, Seattle, Wash.
Chastain, Maurice W., 1908 Erie St., N. Kansas City
Chiles, David R., Smithville
Cox, William L., 101 W. Kansas St., Liberty
Dunham, R. H., 2025 Swift Ave., N. Kansas City
Dwyer, Reinhardt D., 1806 Swift Ave., N. Kansas City
Edwards, Theodore F., 329 Armour Blvd., N. Kansas City
Elliott, Wade E., 4036 Cambridge St., Kansas City, Kans.
Fischer, Edward H., 306 E. 21st Ave., N. Kansas City
Fogel, Isadore B., 4654 De Longpre, Los Angeles, Calif.
Fowler, I. Charles, 2025 Swift Ave., N. Kansas City
Gauer, Robert J., 4916 N. Sherwood Dr., Kansas City
Gay, Elmer E., Richmond
Goodson, William H., Liberty
Hendren, Glenn W., Liberty
Hewitt, John H., Elms Hotel, Excelsior Springs
Hobbs, Earl B., Smithville
Hodge, Robert H., 329 Armour Rd., N. Kansas City
Horton, Ray B., P. O. Box 7472, N. Kansas City
Houck, Russell M., V. A. Hospital, Kecoughtan, Va.
Knox, Earl R., 224 Rialto Bldg., Kansas City
Kuenzi, Donald E., Gashland Clinic, Gashland
Langhus, Melvin O., Route 4, N. Kansas City
McCormick, James E., 4030 N. Oak St., Kansas City
McCracken, Samuel R., 107 W. Spring St., Excelsior Springs
Morrison, Donald H., Ford Motor Co., Claycomo
Mullins, Bernard L., 1806 Swift Ave., N. Kansas City
Musgrave, David E., Excelsior Springs
Nicholson, Ralph L., 116 South St., Excelsior Springs
Parker, Robert H., 2005 Fayette St., N. Kansas City
Pate, O. S., 206 Pioneer Bldg., N. Kansas City
Pileggi, Felix A., R. 4, Brady Hills, N. Kansas City
Porter, Russell C., 831 N. Camino Miramonte, Tucson, Ariz.
Revare, Paul, 2025 Swift Ave., N. Kansas City
Roberts, Lacy M., General Hospital 1, Kansas City
Robichaux, Eugene B., 116 South St., Excelsior Springs
Robichaux, Eugene C., Excelsior Springs
Sanders, George E., 116 South St., Excelsior Springs
Sawyer, Floyd E., 329 Armour Rd.. N. Kansas City
Schertz, Truman B., 2005 Fayette St., N. Kansas City
Schroeder, Sidney O., Liberty
Spelman, Archibald E., Smithville
Sportsman, Weldon L., 6503 N. Grand Ave., Kansas City
Vescovo, Paul C., Smithville
Vinyard, Jack L., Sierra Ordnance Depot, Herlong, Calif.
Waterman, F. M., Liberty
Werner, Dean F., 2025 Swift Ave., N. Kansas City
Willoughby, James W., 114 N. Water St., Liberty
Withrow, John B., 2025 Swift Ave., N. Kansas City
Zacharias, David L., 6708 N. Oak St., Kansas City

CLINTON COUNTY MEDICAL SOCIETY

Kimes, Ira D., Cameron
Luckenbill, Paul T., Box 353, Plattsburg
Mabrey, John P., 103 Main St., Plattsburg
Netherton, George F., 312 E. 3rd St., Cameron
Spalding, Wilber B., Plattsburg
Wilbur, Ronald E., Warren Air Base, Cheyenne, Wyo.

COLE COUNTY MEDICAL SOCIETY
(Jefferson City)

Belden, Edgar A., State Office Bldg.
Bruce, James G., Central Missouri Trust Bldg.
Cassel, William J., Jr., State Office Bldg.
Clark, Kendall A., 515 E. High St.
Cox, William A., 125 E. High St.
Dorris, Richard P., Trust Bldg.
Enloe, Lawrence D., Trust Bldg.
Exon, C. Stuart, 515 E. High St.
Garner, Lynn M., State Division of Health
Guhleman, Henry V., Jr., 130 Medical Arts Bldg.

Gurnee, Landon H., 515 E. High St.
Handler, Fred P., 95 E. Circle St.
Kanagowa, Hajime H., Medical Arts Bldg.
Kelly, Marshall W., 507 E. High St.
Klebba, Larry B., P. O. Box 403
Leslie, J. Paul, 929 Fairmount Blvd.
Leslie, J. T., 933 Fairmount Blvd.
Loyd, Earl L., 515 E. High St.
Loyd, Herlan O., 515 E. High St.
McHaney, John W., 606 E. High St.
McKnelly, William V., 507 E. High St.
Mansur, Edward E., 2012 N. W. 13th St., Miami 13, Fla.
Matthews, John I., 302 Bolivar St.
Maxey, Hugh W., Box 236
Meier, Francis X., 1913 Haysilton Dr.
Meinershagen, Charles W., 138 Forest Pl.
Ossman, Julian A., 2030 W. Main St.
Richardson, R. G., 421 Lafayette St.
Sennott, John S., 515 E. High St.
Shull, George D., 521 E. High St.
Stauffer, Harry B., Central Trust Bldg.
Stephan, August P., 98 W. Circle Drive
Stricker, Harold C., 515 E. High St.
Sugarbaker, Everett D., 503 E. High St.
Summers, Joseph S., Jr., 515 E. High St.
Tanner, Robert H., 1408 Greenberry Rd.
Taylor, Leon A., 129 E. High St.
Tietjen, Frederick O., 213 Jackson St.
Watts, Byron E., 515 E. High St.

COOPER COUNTY MEDICAL SOCIETY (Boonville)

Abele, William A., 329 Main St.
Beckett, Theodore C., 317½ Main St.
Boley, James O., 3200 E. Meyer Blvd., Kansas City
Brown, D. J., 329 Main St.
Chamberlain, Gilbert L., 315 Center Ave.
Diekroeger, Manuel L., R. D. 1
Hata, Daikichi, 329 Main St.
Humphreys, Edward T., 329 Main St.
Sandy, Charles, 4209 W. 70th, Prairie Village, Kans.
Stone, William E., 317½ Main St.
Stuart, Byron M., 329 Main St.
Winn, George W., 329 Main St.
Ziegler, William H., 329 Main St.

CRAWFORD COUNTY (Mid-Missouri County Medical Society)

DADE COUNTY (Barton-Dade County Medical Society)

DALLAS-HICKORY-POLK COUNTY MEDICAL SOCIETY

Barnett, C. H., Bolivar
Brooks, John M., 840 S. Pickwick, Springfield
Griffin, Mary Evelyn, Buffalo
Griffin, Olin A., Jr., Buffalo
Harrell, Henry J., Morrisville
McCraw, Doyle C., Bolivar
Robinson, George G., Humansville

DAVIESS COUNTY (Grand River Medical Society)

DEKALB COUNTY (Grand River Medical Society)

DENT COUNTY (Mid-Missouri County Medical Society)

DOUGLAS COUNTY (South Central Counties Medical Society)

DUNKLIN COUNTY MEDICAL SOCIETY

Baldwin, Paul, Kennett
Beal, Homer, Malden
Belsey, Wallace A., Campbell
Benson, Leo J., Jr., Kennett
Croom, Dorwyn W., Malden
Dempsey, D. T., Kennett
Dunmire, George Q., Kennett
Edmondson, Charles T., Malden
English, Wallace D., Cardwell
Fuzzell, Jameso, Kennett
Hopkins, F. G., Gideon
Linton, C. S., Kennett
Merryman, Charles H., Senath
Miltenberger, Paul C., Kennett
Mitchell, Samuel E., Malden
Mohler, Ebert M., Jr., 2720 Eucalyptus, Long Beach, Calif.
Palenske, Robert L., Hornersville
Peck, Chester R., Jr., Kennett
Rutledge, William J., Campbell
Spence, Elbert L., Kennett
Swafford, M. R., Cardwell
Tarver, Quinton, Kennett
Van Cleve, John D., Malden
Williams, Charles S., Malden
Wilson, Loys C., Kennett
Zimmerman, Joseph A., Kennett

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

Bozzo, Raymond J., Washington
Brenner, Paul A., Owensville
Crawford, Robert M., Sullivan
de la Torre, John J., Sullivan
Denny, Hubert M., Union
Eisenmann, Benjamin P., New Haven
Eyermann, H. Walter, Warrenton
Hoelscher, Harold F., Warrenton
Johnson, Grover C., Marthasville
Kitchell, William E., St. Clair
Mays, Frank G., Washington
Muench, Ludwig O., Washington
Pearl, John F., St. Clair
Post, J. P., Washington
Richardson, William R., Union
Royse, Roy P., Sullivan
Ryan, John B., Washington
Schmidt, Charles A., Gerald
Schmidt, Herbert H., Washington
Shaw, Carvel T., Hermann
Steinbeck, Herbert D., Union
Strehlman, Benjamin G., Union
Wepprich, Michael S., Washington
Workman, George M., Hermann

GASCONADE COUNTY (Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY (Nodaway-Atchinson-Gentry-Worth County Medical Society)

GRAND RIVER MEDICAL SOCIETY (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Erroll W., Carrollton
Bales, Eugene L., Carrollton
Bohnsack, Ralph W., Brookfield
Booth, Herbert R., Hamilton
Breid, Jacob, Trenton
Brennan, Raymond J., Chillicothe
Brewer, Lake, Ridgeway
Bristow, Arthur Shaw, Princeton
Brownfield, Samuel T., Brookfield
Broyles, Watkins A., Bethany
Carpenter, George W., Chillicothe
Carter, Howard, Hamilton
Clark, Chester L., Trenton
Conrad, Joseph, Chillicothe
Cullers, Charles H., Trenton
Daley, Frank R., Hamilton
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Dowell, Horace S., Chillicothe
Duffy, Edgar A., Trenton
Duffy, Oliver F., Trenton
Ellsworth, Willard, Cainsville
Fair, William L., Chillicothe,
Fuson, William A., Trenton
Gale, Joseph F., Chillicothe
Gary, George, Marceline
Gearhart, M., Bethany
Grace, Charles M., Chillicothe
Haskell, Ralph E., Norborne
Howell, B. D., Brookfield
Johnson, Glenn D., Maysville
Kimberlin, Herbert C., Trenton
Knopf, Keith, Brookfield
Lambert, Marian, 5314 W. 71st Tr., Kansas City
LaSalle, Michael W., 1601 E. 47th St., Kansas City
Liggett, M. S., Marceline
Lucas, John H., Brookfield
McArtor, Thomas R., Browning
Magill, Joseph S., Milan
Mairs, Edgar J., Trenton
Mandler, George, Chillicothe
Nibbe, Albert F., Bethany
Nixon, Edward E., Gallatin
Perry, John M., Princeton
Platz, John H., Carrollton
Smith, Robert W., Marceline
Staton, R. Hamilton, Carrollton
Sutherland, Gladys P., Bethany
Sweiger, James H., Maysville
Thompson, Emma A. B., Columbia
Vandiver, Virgil D., Chillicothe
Wilson, Fred K., Winston
Witten, David M., 2525 17th Ave., Rochester, Minn.
Zahrt, Frank H., Princeton

GREENE COUNTY MEDICAL SOCIETY (Springfield)

Allen, Jerry H., 1211 S. Glenstone
Amos, James R., 1745 S. National St.
Anthony, Dallas, Professional Bldg.
Ashley, Thomas E., 1211 S. Glenstone
Atkinson, Thomas E., Jr., 221 Professional Bldg.
Barber, John J., Walnut Grove
Bonebrake, M. D., Professional Bldg.
Box, Ernest M., 412 E. Commercial St.
Brown, Alex L., 1636 S. Glenstone St.
Brown, James T., 724 E. Stanford St.
Brown, Lyman D., 311½ College St.
Burkey, Jordan W., Professional Bldg.
Busiek, Paul J., Professional Bldg.
Busiek, Urban J., Professional Bldg.
Callaway, Guy D., 1115 S. Delaware St.
Callaway, Guy D., Jr., 1211 S. Glenstone St.
Clarke, Michael J., 1636 S. Glenstone St.
Clary, William F., 1636 S. Glenstone St.
Clawson, James W., 1851 S. Franklin St.
Clayton, Edgar L., Professional Bldg.
Cochran, Thomas E., Jr., 2423 Brentwood Blvd.
Coffelt, Kenneth C., Box 323, Ridgeland, Miss.
Coller, Frederick C., 1211 S. Pickwick St.
Conrad, Raymond C., 609 Cherry St.
Crawford, Oral B., Professional Bldg.
Cunningham, Darral D., 1715 Boonville St.
Delzell, William A., 410 McDaniel Bldg.
Dietz, M. Wendell, Burge Hospital
Dillard, Erin M., Professional Bldg.
Dills, Joseph N., 1715 Boonville Ave.
Dimond, Edgar A., Medical Arts Bldg.
Duncan, Robert D., Professional Bldg.
Elkins, Ronald F., Professional Bldg.
Ellis, Francis J., Professional Bldg.
Epps, Curtis, Medical Arts Bldg.
Evans, Ezra L., Jr., Professional Bldg.
Farthing, Fred R., 1234 E. Walnut St.
Farthing, Gene W., Medical Arts Bldg.
Feller, C. E., 1523 N. Jefferson
Ferguson, John P., Jr., 1219 S. Clay St.
Ferrell, Thomas E., Jr., Professional Bldg.
Fessenden, Ersel M., 634 Kingsbury St.
Fitch, C. H. Max, 1711 Boonville Ave.
Focht, Ralph H., Strafford
Francis, William C., Medical Arts Bldg.
Freeman, Hal E., 609 Cherry St.
Fulbright, James H., 1033 E. Walnut St.
Gentry, Merritt L., 432 Medical Arts Bldg.
German, Walter A., Jr., 1211 S. Glenstone St.
Glenn, Elmer E., 1102 E .Elm St.
Glynn, Robert R., 1211 S. Glenstone St.
Good, James T., 1211 S. Glenstone St.
Gorelick, David F., Professional Bldg.
Gose, Don Ferrell, Professional Bldg.
Hahn, Andrew L., Professional Bldg.
Hall, David W., 2122 Wayland Dr.
Hall, Durward G., 1211 S. Glenstone St.
Hanan, Ernest B., 675 S. Kickapoo St.
Hanss, Armand W., Medical Arts Bldg.
H'Doubler, Francis T., Professional Bldg.
H'Doubler, Francis T., Jr., Professional Bldg.
Heimburger, Leroy F., Medical Arts Bldg.
Hogeboom, George W., Professional Bldg.
Hoover, H. Lee, Jr., Professional Bldg.
Horst, Otto C., Medical Arts Bldg.
Horton, James D., Professional Bldg.
Ivy, Henry B., Holland Bldg.
Johnson, George L., Southeast Medical Bldg.
Johnson, Warford B., Professional Bldg.
Johnson, William F., Professional Bldg.
Johnston, Joseph L., 1855 S. Jefferson St.
Key, James S., Springfield Medical Bldg.
Klingner, George M., 2003 E. Sunshine St.
Knabb, Arthur D., 1630 N. Jefferson St.
Knabb, Harris, 1630 N. Jefferson St.
Knabb, Henry F., 1630 N. Jefferson St.
Knabb, Henry F., Jr., 1630 N. Jefferson St.
Knabb, Kenneth E., 1630 N. Jefferson St.
Kolze, Vernon W., Medical Arts Bldg.
Langston, Walter R., Professional Bldg.

Leidinger, Karl J., Republic
Lemmon, George B., 1101 E. Walnut St.
Lemmon, G. Bruce, Jr., Profsesional Bldg.
Leslie, James F., 1715 Boonville Ave.
Litton, Lyle D., Burge Hospital
Lockhart, Charles E., Professional Bldg.
Lowe, Horace A., Medical Arts Bldg.
Lowe, Horace A., Jr., Medical Arts Bldg.
Lurie, Harold H., Professional Bldg.
McAdoo, Hosea W., Medical Arts Bldg.
McAlhany, Howard J., 509 Cherry St.
Maddux, William P., Professional Bldg.
Maher, Robert W., Professional Bldg.
Maple, Francis M., 1962 S. Virginia St.
Marshall, W. J., Professional Bldg.
Meyer, Claude B., 410 McDaniel Bldg.
Morton, Paul C., 1508 E. Stanford St.
Moseley, F. Thomas, 1332 S. Kentwood St.
Musick, James D., Medical Arts Bldg.
Napper, Marvin L., Professional Bldg.
O'Brien, James A., 525 N. 6th St., Muskogee, Okla.
Park, William I., Jr., Professional Bldg.
Penninger, William H., Medical Arts Bldg.
Peterson, Stanley S., 1211 S. Glenstone St.
Plumlee, William C., Holland Bldg.
Polk, John W., Medical Arts Bldg.
Powell, Edwin M., Professional Bldg.
Prater, Bill G., Professional Bldg.
Purcell, Elmer M., Professional Bldg.
Rainwater, E. H., Professional Bldg.
Rigney, Levi M., Woodruff Bldg.
Rosen, Max, Medical Arts Bldg.
Russell, Earl D., 1503 S. Glenstone St.
Schwartz, Eugene J., Professional Bldg.
Schweitzer, Fred C., Jr., Woodruff Bldg.
Sewell, Walter S., Professional Bldg.
Siceluff, Joseph G., 609 Cherry St.
Silsby, Don H., 326 Landers Bldg.
Silsby, Don J., McDaniel Bldg.
Silsby, Harry D., Professional Bldg.
Simpson, Emerson L., 1630 N. Jefferson St.
Smith, C. Souter, 620 St. Louis St.
Snead, William H., Jr., Professional Bldg.
Stewart, R. Wendell, Professional Bldg.
Sundstrom, Frank D., 1211 S. Glenstone St.
Tarrasch, E. L., Woodruff Bldg.
Taylor, William E., Southwest Missouri State College
Thomasson, David D., 1630 N. Jefferson St.
Tillman, Walter W., Jr., Professional Bldg.
Tsang, John L. K., 1636 S. Glenstone St.
Turner, Glenn O., Professional Bldg.
Upshaw, Paul O., Medical Arts Bldg.
Vail, A. Denton, Professional Bldg.
Wakeman, Jasper N., Woodruff Bldg.
Walsh, William T., P. O. Box 144, Kingwood, W. Va.
Webb, Leslie R., Jr., Professional Bldg.
White, R. Ned, Professional Bldg.
Williams, John W., Professional Bldg.
Williams, John W., Jr., Landers Bldg.
Wise, Gordon F., Professional Bldg.
Wood, William W., 1211 S. Glenstone St.
Wooldridge, W. E., Professional Bldg.
Yancey, Daniel L., 1211 S. Glenstone St.

GRUNDY COUNTY
(Grand River Medical Society)

HARRISON COUNTY
(Grand River Medical Society)

HENRY COUNTY MEDICAL SOCIETY

Bradshaw, W. D., Clinton
Hollingsworth, Ray S., Clinton
Hughes, Shelby B., Clinton
Jennings, Robert J., Windsor
Riffel, Gordon W., Hq. Co., 2nd ARB, 51st Inf., New York 35, N. Y.
Smith, James O., Clinton
Smith, William J., Windsor
Thurber, Claude M., Windsor
Walker, George S., Clinton
Walker, Hugh B., Clinton
Woltzen, Samuel W., Clinton

HICKORY COUNTY
(Dallas-Hickory-Polk County Medical Society)

HOLT COUNTY MEDICAL SOCIETY

Hogan, Frank E., Mound City
Kearney, Elmer F., Oregon
Kinney, Max W., Mound City
Perry, David C., Mound City
Sweaney, Isaac F., Oregon

HOWARD COUNTY MEDICAL SOCIETY

Allen, William C., Glasgow
Bloom, W. A., Fayette
Dean, Francis D., Fayette
Gardner, Joseph W., Glasgow
Leech, Maurice P., Fayette
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette

HOWELL COUNTY
(South Central Counties Medical Society)

IRON COUNTY
(Mineral Area County Medical Society)

JACKSON COUNTY MEDICAL SOCIETY
(Kansas City)

Aaron, George A., 10901 Winner Rd., Independence
Adelman, Arthur, 701 E. 63rd St.
Ahlefeld, Charles B., 215 Pershing Rd.
Aisenstadt, E. Albert, 1204 W. 67th St.
Allebach, H. K., Research Hospital
Allen, Charles E., 712 Waldheim Bldg.
Allen, Charles H., 616 W. Maple St., Independence
Allen, Robert E., 411 Nichols Rd.
Allen, William B., 4620 J. C. Nichols Parkway
Alsop, Webb S., Jr., 411 Nichols Rd.
Altomare, Edward P., 2610 E. 63rd St.
Altringer, Arthur N., 305 W. 43rd St.
Altringer, Mary P., 5630 Mission Dr.
Anderson, A. Isadore, 723 W. 45th St.
Anderson, Raymond B., Plaza Time Bldg.
Anderson, Richard W., 21 W. 58th St.
Andrews, Berneil W., 4620 J. C. Nichols Parkway
Andrus, Bailey C., Plaza Medical Bldg.
Appleford, George B., 215 Pershing Rd.
Arms, Arnold V., 4635 Wyandotte St.
Arthur, William J., Plaza Parkway Bldg.
Aschman, Theodore H., Plaza Time Bldg.
Asel, Norman D., Plaza Time Bldg.
Asher, Arthur G., Professional Bldg.
Atcheson, Bellfield, 5215 Sunset Dr.
Atwell, Floyd C., 4620 J. C. Nichols Parkway
Atwood, John M., 6519 Valley Rd.
Aull, John, Professional Bldg.
Bachman, Paul L., 1212 W. Truman Rd., Independence
Baer, Alvin J., 1404 Bryant Bldg.
Baker, Philip J., Blue Ridge Cut-off & New 40 Highway, Independence
Ball, James E., 1102 E. 47th St.
Ballard, Volney B., Plaza Time Bldg.
Barelli, Pat A., 425 E. 63rd St.
Barnard, John L., Jr., 4312 J. C. Nichols Parkway
Barnes, Robert H., 6410 W. 75th St., Overland Park, Kans.
Barnett, Gordon P., 751 E. 63rd St.
Barry, Gerald W., 3601 Troost Ave.
Barry, John W., Kansas City General Hospital 1
Barry, William B., 116 W. 47th St.
Baum, Frank E., 701 E. 63rd St.
Baumhardt, Edward E., 4635 Wyandotte St.
Bay, Merrill R., 1808 W. Main St., Blue Springs
Becker, Richard R., 4000 Baltimore Ave.
Bee, James E., 3520 Broadway
Bell, William F., 18 E. 3rd St., Lee's Summit
Belot, Monti L., 7411 Highway 71, N. W., Parkville
Bennett, James D., 409 E. 63rd St.
Benoit, Hector W., Jr., 503 Plaza Parkway Bldg.
Berenson,Sheldon E., 427 E. 79th St.
Bergmann, Victor H., Professional Bldg.
Bernreiter, Michael, Professional Bldg.
Berry, Guy N., 4706 Broadway
Berry, Maxwell G., 315 Alameda Rd.
Biggs, Harry L., 63rd & Evanston, Raytown
Bikales, Victor W., 425 E. 63rd St.
Bills, Marvin L., 236 Plaza Time Bldg.
Birenboim, Irvin M., 701 E. 63rd St.
Black, Don A., Professional Bldg.
Black, Eugene C., Professional Bldg.
Blim, Richard D., Plaza Time Bldg.
Bolin, N. Venay, 519 Plaza Parkway Bldg.
Boody, Robert J., 217 Plaza Time Bldg.
Border, Charles T., 1701 Ruby Dr., Garland, Tex.
Bordy, Marvin D., 109 Doctors Bldg.
Borenstine, Joseph, 121 W. 63rd St.
Boughnou, Harvey P., 315 Alameda Rd.
Bourke, Timothy S., 1207 Rialto Bldg.
Boutros, Amin, 3112 Linwood Blvd.
Bowser, John F., Plaza Time Bldg.
Brams, Jack B., 751 E. 63rd St.
Bridgens, James G., Independence Sanitorium, Independence
Brown, Adrian J., 4526 Paseo St.
Brown, Irwin S., Plaza Time Bldg.
Brown, Robert S., 4706 Broadway
Brown, William R., General Hospital 1
Broyles, Glen H., Professional Bldg.
Brumm, Lawrence W., 6308 Troost Ave.
Bruner, Robert E., 912 Valentine Rd.
Brust, Carl H., 6114 Howe Dr., Mission, Kans.
Bryan, William H., Jr., 2204 E. 18th St.
Buckingham, William, 314 Professional Bldg.
Buckner, Robert C., Plaza Parkway Bldg.
Budke, Harold A., 306 E. 12th St.
Buhler, Victor B., St. Joseph's Hospital
Bunting, Williston P., 305 W. 43rd St.
Burns, Beryl I., 625 E. Armour Blvd.
Burns, Jonathan E., 530 S. George St., Charles Town, W. Va.
Butcher, Robert W., 1101 W. 86th Street Tr.
Byers, Philip L., 4635 Wyandotte St.
Caffrey, Raymond J., 713 Main St., Grandview
Caldwell, John K., Argyle Bldg.
Callaway, Luther M., 306 E. 12th St.
Calovich, Emery R., 4620 J. C. Nichols Parkway
Campbell, Frederick B., Professional Bldg.
Campbell, John G., General Hospital 1
Carbaugh, Glenn C., 2004 Bryant Bldg.
Carlson, Hjalmar E., Professional Bldg.
Carmichael, Francis A., Jr., Plaza Time Bldg.
Carrier, Edson C., 315 Alameda Rd.
Casebolt, Buford T., General Hospital 1
Casebolt, Milton B., 4000 Baltimore Ave.
Casford, Ralph S., 315 Alameda Rd.
Cashman, John W., Argyle Bldg.
Castlelaw, Rush E., 3731 Locust St.
Castles, John E., Argyle Bldg.
Cavaness, Ernest W., 1010 Neptune Dr., Leucadia, Calif.
Centner, Paul J., Professional Bldg.
Chambers, James Q., Jr., 4620 J. C. Nichols Parkway
Chandler, Robert A., Doctors Bldg.
Chapman, Arthur H., Professional Bldg.
Chapman, Samuel B., Argyle Bldg.
Clark, Harold B., Rialto Bldg.
Clark, Irving H., 5801 Kingslee Dr., Hickman Mills
Clasen, Arthur C., 4620 J. C. Nichols Parkway
Cline, Merle A., Argyle Bldg.
Coburn, Donald F., Plaza Time Bldg.
Cochran, Joseph J., 4706 Broadway
Cockerell, Sanford F., 11037 Winner Rd., Independence
Coffey, Ralph R., Professional Bldg.
Coffin, Theodore A., Professional Bldg.
Cohen, Harry K., Argyle Bldg.
Cohen, Hilliard, Menorah Hospital
Colglazier, Mary C., 3317 E. 43rd St.
Colom, George A., 425 E. 63rd St.
Comboy, Lawrence J., 10901 Winner Rd., Independence
Connell, Evan S., 1408 Commerce Bldg.
Conover, Charles C., Trinity Lutheran Hospital
Cooper, Charles S., Rialto Bldg.
Cooper, John H., Argyle Bldg.
Cooper, Leo F., 1220 E. 31st St.
Cortner, Mary C., 4526 Paseo St.
Counsell, Chester M., 708 W. 17th St.
Cowherd, Joseph B., 63rd & Brookside Blvd.
Cox, Kenneth E., 4635 Wyandotte St.
Cramer, Quentin, Professional Bldg.
Creditor, Morton C., Menorah Hospital
Culbertson, William F., 1253 Huntington Rd.
Cummins, Walter F., Professional Bldg.
Curran, Edward J., Federal Reserve Bank Bldg.
Curran, Kevin E., Federal Reserve Bank Bldg.
Curran, Maurice D., Federal Reserve Bank Bldg.

Curts, Calvin J., Professional Bldg.
Cutcliff, Daniel J., 1222 McGee St.
Dann, David S., 701 E. 63rd St.
Darrow, Robert S., Roma 37, Mexico City, Mex.
Daum, Harold F., Argyle Bldg.
Davis, Herbert V., 4620 J. C. Nichols Parkway
Davis, Jack M., Raytown
Davis, John J., 9011 Delmar St., Overland Park, Kans.
Davis, Kenneth A., 231 W. 47th St.
Davis, Robert C., Professional Bldg.
Day, Cameron B., 2203 E. 68th St.
Decker, Albert I., 3000 West 73th St.
DeLashmutt, Edward J., General Hospital 1
DeMaria, Peter F., St. Joseph's Hospital
DeMott, John D., 1440 Professional Bldg.
DeMotte, John A., Plaza Medical Bldg.
Dennie, Charles C., Professional Bldg.
Deweese, Everett R., Rialto Bldg.
Dickson, Frank D., 4312 Mill Creek Parkway
Diveley, Rex L., 4312 Mill Creek Parkway
Dixon, Otto Jason, 1533 Professional Bldg.
Dixon, Dewiser L., 2204½ E. 18th St.
Dlabal, Luke J., 1210 Ash Ave., Independence
Doane, William L., 1102 130th St., Grandview
Dodge, Mark, 4635 Wyandotte St.
Dodge, Milton, 701 E. 63rd St.
Doherty, William R., General Hospital 1
Dorsch, Ervin H., 10912½ Winner Rd. Independence
Downey, James W., Garden Bldg., East
Drake, Roy F., 1032 Professional Bldg.
Draney, Thomas E., 4526 Paseo St.
Drisco, Robert M., 4620 J. C. Nichols Parkway
Drowns, Bruce V., Professional Bldg.
Duer, Mildred C., 310 W. 47th St.
Duncan, Ralph E., P. O. Box 2597
Duncan, William H., Professional Bldg
Dunleavy, James D., 314 Wirthman Bldg.
Dwyer, Frank X., 4620 J. C. Nichols Parkway
Dwyer, Hugh L., 5408 Central St.
Edde, Clifford G., Argyle Bldg.
Edmonds, Devilla D., 4800 E. 24th St.
Eisemann, Gustave, Doctors Bldg.
Eldridge, Charles J., 409 E. 63rd St.
Elias, David J., 10311 Sheley Rd., Independence
Elliott, James R., 1080 Busch Garden Ct., Pasadena, Calif.
Elliott, Raymond Glenn, Bryant Bldg.
Elser, Otto H., 10901 Winner Rd., Independence
Engel, Lawrence P., 315 Alameda Rd.
Enna, Carl D., Argyle Bldg.
Eshelman, Albert D., 7608 E. 49th Tr.
Eubank, David F., Raytown
Eubank, Dillard M., Raytown
Eubank, William R., 1404 Bryant Bldg.
Eubank, William Y., General Hospital 1
Eversman, George H., Jr., Argyle Bldg.
Farley, Claude C., 4526 Paseo St.
Farney, Jacob P., 6305 Brookside Pl.
Farnsworth, Jesse J., Professional Bldg.
Feierabend, Frank L., Argyle Bldg.
Feist, George V., 2400 Tomahawk Rd.
Ferguson, Donald S., 2012 E. 24th St.
Ferguson, Eugene H., Professional Bldg.
Ferguson, James T., Bryant Bldg.
Ferris, Carl R., Argyle Bldg.
Field, Lawrence M., 600 E. 72nd St.
Findley, James W., 718 Shukert Bldg.
Finkle, Robert H., 9507 E. 80th Tr.
Fitzgerald, Robert H., 10901 Winner Rd., Independence
Flanders, Horace F., Professional Bldg.
Flatley, John A., 63rd & Raytown Rd., Raytown
Fleming, Royall B., 1433 E. 19th St.
Folck, William P., 10 Richard Rd.
Forman, Louis H., 4635 Wyandotte St.
Forsythe, Robert W., Plaza Time Bldg.
Fowler, Fred D., 330 W. 47th St.
Fowler, James W., 1103 Grand Ave.
Frankl, George, Doctors Bldg.
Fredeen, Robert C., Plaza Time Bldg.
Frick, John P., Professional Bldg.
Friedman, Morris L., 701 E. 63rd St.
Fritzlen, Thomas J., 39th & Rainbow Blvd., Kansas City, Kans.
Fuhrman, Donald L., Professional Bldg.
Gainey, Harold L., 4635 Wyandotte St.
Ganley, William C., Argyle Bldg.
Gard, Raymond F., 10901 Winner Rd., Independence
Garrison, Roy F., 6509 Prospect Ave.
Gaskins, John H., Plaza Parkway Bldg.
Geha, Braham J., General Hospital 1
Gempel, Paul A., 315 Nichols Rd.
Gentry, Enoch N., Jr., 2414 Telephone Bldg.
Geraughty, Edward, Odd Fellows Home, Liberty
Gestring, Hugh A., 1220 E. 31st St.
Getelson, Joseph, Rialto Bldg.
Gibson, David M., St. Luke's Hospital
Gilkey, Harry M., Professional Bldg.
Gilliland, Oliver S., Professional Bldg.
Gillmor, Charles S., Rialto Bldg.
Ginsberg, Norman A., Professional Bldg.
Gist, William W., 330 W. 47th St.
Glasscock, Ernest L., Plaza Time Bldg.
Gloyne, Howard F., 231 W. 47th St.
Goldman, Stanley L., 751 E. 63rd St.
Goodman, Leroy, Plaza Time Bldg.
Goodson, William H., Jr., Professional Bldg.
Grabske, Charles F., 10901 Winner Rd., Independence
Grabske, Charles F., Jr., 10901 Winner Rd., Independence
Graham, James W., 2904 Troost Ave.
Graham, Wallace H., Argyle Bldg.
Grauerholz, James W., Congress Bldg.
Greaves, Eli A., 7303 Madison Ave.
Green, John Reuben, 10901 Winner Rd., Independence
Green, John R., 10901 Winner Rd., Independence
Green, Stanley L., 10901 Winner Rd., Independence
Greene, W. Wallace, 4620 J. C. Nichols Parkway
Griffith, John A., Jr., Plaza Medical Bldg.
Growdon, John A., Professional Bldg.
Guffey, Don C., Professional Bldg.
Gundle, Sigmund, 425 E. 63rd St.
Gunn, Richard W., 317 N. Van Brunt St.
Haggen, Margaret E., 6228 Agnes St.
Haight, John M., 3401 E. 12th St.
Hall, Thomas B., Professional Bldg.
Hallberg, John W., Route 2, Everton
Halperin, Philip H., 751 E. 63rd St.
Hamel, Herbert A., 6306 Morningside Dr.
Hamill, Robert W., 4620 J. C. Nichols Parkway
Hamilton, Hugh G., Bryant Bldg.
Handley, James M., 5635 Russell St., Mission, Kans.
Hanes, Lee D., 4635 Wyandotte Ave.
Hanes, Robert L., 12300 S. 71 Highway, Grandview
Hardacre, Ruth Anna, 3300 Charlotte St.
Harless, Morris S., 409 E. 63rd St.
Harned, Bert W., 6902 Dearborn, Overland Park, Kans.
Hart, Lawrence W., 1710 Independence Ave.
Hartwig, Frederick H., 701 E. 63rd St.
Hashinger, Edward H., 1905 Spendrift Dr., La Jolla, Calif.
Haynes, Lee, 820 Archibald St.
Haynes, Solon E., Professional Bldg.
Hazen, Robert M., Argyle Bldg.
Hearst, Allen L., 5115 Brookwood Ave.
Heller, B. Marcus, 409 E. 63rd St.
Hellerstein, Stanley, 6636 Lydia St.
Helman, Richard G., Professional Bldg.
Henry, Clarke L., 523 Plaza Parkway Bldg.
Henry, Schubert D., 1115 Grand Ave.
Herbst, Frank, 330 W. 45th Tr.
Herrman, George V., Plaza Time Bldg.
Hess, Paul D., 8423 High Dr.
Hibbard, Blaine Z., Plaza Time Bldg.
Hickerson, John C., 604 W. Maple St., Independence
Hickerson, William H., 604 W. Maple St., Independence
Higgins, Robert S., 411 Nichols Rd.
Hill, Jack H., Trinity Lutheran Hospital
Hill, Jesse N., 1438 Hedges Ave., Independence
Hines, Paul, 2625 W. Paseo St.
Hink, Frederick W., 10235 Independence Rd.
Hirschboeck, Elizabeth (Sister Mary Mercy), 3210 E. 23rd St.
Hodgson, Frank H., 4301 Main St.
Hoeper, Samuel D., 6232 Troost Ave.
Hoffman, Jacob S., 751 E. 63rd St.
Hoffmann, R. Lee, Professional Bldg.
Hogan, Daniel F., 801½ W. 39th St.
Hogue, Frank S., 233 Plaza Medical Bldg.
Hollweg, Kenneth C., 612 Bryant Bldg.
Holman, Melvin V., Plaza Parkway Bldg.
Holt, Waldo S., 4620 J. C. Nichols Parkway
Holton, Edward B., 10901 Winner Rd., Independence
Hook, Waller C., Professional Bldg.
Horseman, Robert F., 5830 Nall, Mission, Kans.
Houck, George W., 2625 W. Paseo St.
Hoxie, George H., 2808 Hillegass Ave., Berkeley, Calif.
Hudson, Frank M., Plaza Time Bldg.
Hughes, Gerald E., 6509 Prospect St.
Hungate, Carroll P., Argyle Bldg.
Hunt, Claude J., Professional Bldg.
Hunter, Martin P., Waldheim Bldg.
Hurwitt, Frank, Pickwick Hotel
Ingham, Walton C., 411 Nichols Rd.
Irland, Robert D., Union Station Hospital
Irwig, Fred, Professional Bldg.
Jackson, William R., Bryant Bldg.
Jacob, Walter P., 701 E. 63rd St.
Jacobs, Morton, 6416 Verona Rd.
Jaime, Nicholas, 715 Westport Rd.
James, Otis E., Jr., 6306 Morningside Dr.
Jansen, Robert, 101 E. 63rd St.
Jarvis, James A., 4620 J. C. Nichols Parkway
Jeffries, Robert C., 6315 Brookside Plaza
Jennett, Harry N., 2701 Forest Ave.
Jennett, J. Harvey, Professional Bldg.
Johnson, C. Laurence, Professional Bldg.
Johnson, Edgar W., 4627 W. 70th St., Prairie Village, Kans.
Johnson, James S., 2202 E. 18th St.
Johnson, John E., Research Hospital
Johnson, Paul A., 121 N. Chelsea Ave.
Johnson, Thomas M., Balcony Bldg.
Johnson, William A., 2206½ E. 18th St.
Johnstone, Paul N., Bryant Bldg.
Jonas, Harry S., Jr., 1106 W. 25th St., Independence
Jones, George H., 1435 E. 78th St.
Jones, T. Reid, Plaza Time Bldg.
Justus, John Bahan, Plaza Parkway Bldg.
Kantor, Julius M., 701 E. 63rd St.
Kantor, Samuel, 751 E. 63rd St.
Katz, Milton, 751 E. 63rd St.
Kaul, Philip G., Plaza Time Bldg.
Kealhofer, George C., 6627 Prospect Ave.
Keeler, James E., 4620 J. C. Nichols Parkway
Keith, Willis E., Argyle Bldg.
Kelly, Eugene H., 402 Wabash Ave.
Keltner, Raymond O., Raytown
Kennard, George K., St. Mary's Hospital
Kent, Bela Kaszas, Doctors Bldg.
Kent, Clifford F., Professional Bldg.
Kerr, Russell W., St. Joseph's Hospital
Ketcham, William M., 1408 Waldheim Bldg.
Ketron, Marvin B., 5933 Cherry St.
Ketterman, Grace H., 9231 Belinder St.
Ketterman, Herbert L., 9231 Belinder St.
Kettner, Edward G., Professional Bldg.
Kienberger, Paul A., 5246 St. John Ave.
Kiene, Richard H., 4312 J. C. Nichols Parkway
Kimball, Merritt H., 610 E. 36th St.
King, Walter R., Professional Bldg.
Kingsbury, Helen C., 6415 Sagamore Rd.
Kirkpatrick, Milton E., 22nd & McCoy Ave.
Kiser, David M., 920 W. 47th St.
Kitchen, William M., 425 E. 63rd St.
Klein, Edward H., Plaza Medical Bldg.
Klepinger, Dayton P., 4116 Warwick Ave.
Knight, John S., 305 W. 43rd St.
Knight, Lyle B., 8 W. 3rd St., Lee's Summit
Knoch, H. Kermit, Plaza Parkway Bldg.
Koehler, Charles A., Wirthman Bldg.
Kohn, Cecil M., Doctors Bldg.
Korth, William M., Professional Bldg.
Kovac, Albert P., 1222 McGee St.
Kraft, Jacob, 701 E. 63rd St.
Kranson, Seymour J., 1210 Ash Ave., Independence
Kuhn, William F., II, 6247 Brookside Ave.
Kyger, Fred B., Professional Bldg.
Kyger, John E., 701 E. 63rd St.
Kyner, Thomas A., Wirthman Bldg.
Lacy, N. Eugene, Plaza Time Bldg.
Laffoon, France L., 1326 Alta Vista Dr., Vista, Calif.
Lally, James J., Rialto Bldg.
Lamar, Robert F., Professional Bldg.

Landis, George K., Professional Bldg.
Laning, J. Halcombe, 6205 Brookside Ave.
Lapi, Angelo, St. Mary's Hospital
Lapi, Ruth M., 2012 Stratford Rd.
Lapp, Harry C., Professional Bldg.
Latham, Raymond W., 4620 Nichols Parkway
Laurenzana, Frank P., 428 S. White St.
Layton, Ira C., Argyle Bldg.
Lee, Chester E., 5830 Nall St., Mission, Kans.
Lee, George C., Professional Bldg.
Lehner, Richard L., Professional Bldg.
Leifer, William W., Doctors Bldg.
Leitch, Cecil G., Professional Bldg.
Leitz, Frank B., 6832 Locust St.
Lentz, Clark H., 215 W. Pershing Rd.
Levey, Harry B., 701 E. 63rd St.
Lewis, Revis C., Plaza Time Bldg.
Lichtor, Alexander, 751 E. 63rd St.
Lichtor, Joseph M., 751 E. 63rd St.
Lieberman, B. Albert, Jr., Professional Bldg.
Liersch, Joseph C., 815 E. Gregory Blvd.
Lilly, Terry E., Jr., 306 E. 12th St.
Lilly, Terry E., Sr., 306 E. 12th St.
Lindquist, Carl N., P. O. Box 679
Link, Vance E., 1209 Beverly Rd., Independence
Linville, Howard E., Professional Bldg.
Loewy, Louise B., 2625 Paseo St.
Long, Robert S., 4800 E. 24th St.
Love, Drury McM., 1301 E. 59th Tr.
Love, Robert W., Jr., 6026 Rockhill Rd.
Lowell, Paul, 711 W. 46th St.
Lowrey, Ford J., Rialto Bldg.
Lundgren, Fred H., Jr., Plaza Medical Bldg.
Luppens, Albert F., Route 2, Lee's Summit
Lyddon, Harold F., Jr., 75th & Troost Ave.
Lytton, George J., Psychiatry Record Center
McAlester, Andrew W., III, Bryant Bldg.
McCalla, John P., 1500 W. 37th St.
McCanse, Raymond A., Plaza Broadway Bldg.
McCarthy, William F., 140 Lake Topawingo, Blue Springs
McClanahan, Robert C., Professional Bldg.
McComas, Robert E., Ellis Fischel State Cancer Hospital, Columbia
McConchie, James E., 10901 Winner Rd., Independence
McCoy, Frederick J., 701 E. 63rd St.
McCubbin, Clarence Roy, 701 E. 63rd St.
McCullough, Campbell C., Argyle Bldg.
McCunniff, William B., Argyle Bldg.
McDonald, Bruce P., 2604 Prospect Ave.
McDonald, Victor G., Jr., Plaza Time Bldg.
McDonnell, John F., Plaza Medical Bldg.
McFarland, M. Donald, Plaza Medical Bldg.
McHale, Thomas C., 4620 Independence Ave.
McKee, Joseph W., Professional Bldg.
McLeod, John, Tower Bldg.
McMillan, Thomas E., Professional Bldg.
McPhee, William R., 5820 Highland Ave.
McPherson, Owen P., 720 E. 72nd Tr.
McVay, James R., 856 W. 62nd St.
McVay, James R., Jr., 814 Porter Bldg.
MacInnis, Florence E., 4620 Nichols Parkway
Maclean, John A., 600 N. Canyon Blvd., Monrovia, Calif.
MacNaughton, Robert A., St. Joseph Hospital
Major, Hermon S., 3100 Euclid Ave.
Makous, Norman, 4526 Paseo Ave.
Mangels, Kenneth Albert, 11717 E. 23rd St., Independence
Marks, Mark M., 316 Doctors Bldg.
Marsh, Alice, Kansas University Medical Center, Kansas City, Kans.
Marshall, Cameron F., 201 Plaza Theatre Bldg.
Mathewson, Hugh S., 4620 J. C. Nichols Parkway
May, James W., 425 E. 63rd St.
Mayer, John H., Jr., 503 Plaza Parkway Bldg.
Melgaard, S. Ross, 6831 Cherry St.
Meriwether, Don R., 5109 W. 60th Tr., Mission, Kans.
Meyer, Paul W., 4312 J. C. Nichols Parkway
Meyers, Harold L., 308 Doctors Bldg.
Miles, George O., 4706 Broadway
Miller, Clint L., 8 W. 3rd St., Lee's Summit
Miller, Gerald L., 4706 Broadway
Miller, Wade Hampton, 1416 Professional Bldg.
Miller, Walter P., 6328 Baltimore Ave.
Miller, Wilson H., 4620 Independence Ave.
Mitchell, Andrew D., 200 Plaza Time Bldg.
Mitchell, Robert H., 410 Bryant Bldg.
Mixson, William C., 4635 Wyandotte Ave.
Monahan, Elmer P., 17500 W. 95th St., Lenexa, Kans.
Montello, Samuel A., 4620 J. C. Nichols Parkway
Montgomery, James G., 1332 Professional Bldg.
Mooney, Justin Loeb, 2006 Bryant Bldg.
Mooney, Marcel L., 1420 Bryant Bldg.
Moore, Robert A., 106 W. 14th St.
Morest, F. Stanley, 405 Plaza Parkway Bldg.
Morgan, David B., 4620 J. C. Nichols Parkway
Moriarty, Lauren R., St. Mary's Hospital
Morrow, Raymond L., 409 E. 63rd St.
Moss, Paul, 4706 Broadway
Mosser, Robert S., 4015 Eaton Ave.
Mueller, Martin J., 934 Argyle Bldg.
Mullen, Leo M., 4443 Paseo St.
Multhauf, Cyril J., 1222 McGee St.
Mundy, William L., 420 Professional Bldg.
Murphy, Robert J., 4301 Main St.
Myers, John L., Wesley Gardens, Des Moines, Wash.
Myers, John S., 815 Shukert Bldg.
Myers, Robert M., 1025 Rialto Bldg.
Myers, Wilson A., 815 Shukert Bldg.
Needels, Orval T., 7400 Wornall Rd.
Nelson, Bentley A., 305 W. 43rd St.
Nelson, Charles S., Westphalia, Kans.
Nesselrode, John H., 10901 Winner Rd., Independence
Nickson, Charles E., Jr., 10901 Winner Rd., Independence
Nicolay, Kenneth S., 4635 Wyandotte St.
Nigro, Dominic M., 1222 McGee St.
Nigro, E. Robert, 1222 McGee St.
Nigro, Joseph A., 1222 McGee St.
Noltensmeyer, Milton N., 3305 W. 50th St., Kansas City, Kans.
Nunn, Pat Morris, 1401 Southwest Blvd., Kansas City, Kans.
O'Brien, Leo A., 1002 Argyle Bldg.
O'Brien, Raymond W., 4620 J. C. Nichols Parkway
O'Connell, Frank A., 7951 State Line St.
O'Connell, Gerald L., 12714 S. 71 Highway, Grandview
Ogilvie, John H., Route 1, Gravois Mills
Oglevie, Rial R., 522 Professional Bldg.
O'Hearne, John J., 4635 Wyandotte St.
O'Malley, James F., 4706 Broadway Plaza Bldg.
O'Neil, James H., 425 E. 63rd St.
Osgood, George M., 104 Prairie Village Medical Bldg., Prairie Village, Kans.
Overesch, Harry B., 600 Professional Bldg.
Owens, Graham J., 906 Grand Ave.
Owens, Hugh H., 1034 Rialto Bldg.
Owens, Michael J., 701 E. 45th St.
Owens, Richard L., 1034 Rialto Bldg.
Owens, Robert H., 4706 Broadway Plaza Bldg.
Ozar, Milton B., 701 E. 63rd St.
Padfield, Earl G., Jr., Plaza Broadway Bldg.
Pakula, Sidney F., 251 Plaza Time Bldg.
Pallett, Harold A., 1132 Professional Bldg.
Parker, Elmer L., 3335 Troost Blvd.
Parker, Hubert M., 928 Argyle Bldg.
Parsons, Eugene O., 315 Nichols Rd.
Passman, Harold, 701 E. 63rd St.
Patterson, John R., Plaza Time Bldg.
Patterson, William W., General Hospital 1
Pearson, Paul E., 1025 Rialto Bldg.
Peete, Don C., 1500 Professional Bldg.
Pendleton, George F., 403 W. 68th St.
Perll, Maurice F., 6843 Cherry St.
Perll, Rita D., 6843 Cherry St.
Perry, Ralph, 4800 E. 24th St.
Peterson, Carl M., 2462 Brooklyn Ave.
Peterson, George L., 2625 W. Paseo St.
Peterson, Milton C., 701 E. 63rd St.
Peterson, Walter R., 2462 Brooklyn Ave.
Petry, Ezra L., 701 E. 63rd St.
Pfuetze, Edwin L., 407 Plaza Parkway Blvd.
Pickard, Nicholas S., 241 Plaza Time Bldg.
Pickens, Edgar E., 4826 Roanoke Parkway
Pierron, John B., 6516 Linden Rd.
Pinsker, Oscar T., Overland Park, Kans.
Piper, Donald K., 1210 Professional Bldg.
Pipkin, Garrett F., 409 Argyle Bldg.
Pittam, Radford F., 418 Hyde Park, Hutchinson, Kans.
Polk, George M., Route 1, Lee's Summit
Pollock, Leo H., 1406 Professional Bldg.
Poorman, Bert A., 2836 Prospect Ave.
Porter, Louis, 701 E. 63rd St.
Porter, William J., 317 W. Kansas, Independence
Potter, Lee G., 724 Professional Bldg.
Powell, Nelson E., St. Luke's Hospital
Powers, John M., 3304 Linwood Blvd.
Prentiss, Harry S., 900 Rialto Bldg.
Preston, Albert, Jr., 4635 Wyandotte St.
Printz, Joseph H., 701 E. 63rd St.
Printz, Otto J., 701 E. 63rd St.
Pucci, Gregory L., 9923 Mercier Ave.
Pugh, Richard G., 317 W. Kansas Ave., Independence
Quer, Erich A., 701 E. 63rd St.
Quistgard, Paul C., 6741 Prospect Ave.
Rader, Ada B., Martin City
Ramey, Ehret O., 4635 Wyandotte St.
Ramos, John F., Jr., 2462 Brooklyn Ave.
Rannie, Paul R., 709 S. Fuller St., Independence
Rector, Joe L., Jr., 3716 Broadway
Reinhardt, George R., 1332 Professional Bldg.
Reister, Philip D., 8241 Virginia Ave.
Reitz, Carl H., 404½ W. 75th St.
Remley, George C., 832 Argyle Bldg.
Rhoades, Arthur B., 2300 W. 51st Tr., Kansas City, Kans.
Richardson, Marion W., 2526 Prospect Ave.
Riller, Lowell E., 909 Professional Bldg.
Rinkel, Herbert J., 2005 Bryant Bldg.
Roberts, Harold M., 1530 Professional Bldg.
Roberts, Sam E., 1110 Professional Bldg.
Robinson, Arthur W., 6600 Wenonga Rd.
Robinson, Ernest K., 1228 Professional Bldg.
Robinson, G. Wilse, Jr., 2625 Paseo St.
Robinson, William J., 308 Doctors Bldg.
Robison, James T., Jr., 4620 J. C. Nichols Parkway
Rodgers, Samuel U., 2462 Brooklyn Ave.
Rose, Charles W., 334 S. Van Brunt Blvd.
Rubin, Sidney, 701 E. 63rd St.
Rubnitz, Leon H., 701 E. 63rd St.
Rufe, John R., 2003 Bryant Bldg.
Russell, Robert K., 63rd & Evanston, Raytown
Ryder, Gilbert E., 427 Greenway Tr.
Saferstein, A. Lester, 6859 Cherry St.
Saladine, Anthony, 1040 Argyle Bldg.
Samuelson, Edward A., 2603 E. 31st St.
Sanders, Harmon U., Jr., 10901 Winner Rd., Independence
Sanders, William F., 411 Nichols Rd.
Saper, Philip, 3 E. 3rd St., Lee's Summit
Sauer, Gordon C., 425 E. 63rd St.
Saunders, Everett L., 411 First National Bank Bldg., Independence
Scarpellino, Louis A., 36 E. 52nd St.
Schaerrer, Hans, 5110 White Ave.
Schaerrer, William C., 4635 Wyandotte St.
Schauffler, Robert M., 107 W. Linwood Blvd.
Schiffmacher, Jack E., 330 W. 47th St.
Schorer, Edwin H., 1910 W. 56th St.
Schottman, Gerhard W., Jr., 5902 W. 77th Tr.
Schutz, Carl B., 320 W. 47th St.
Schutz, Richard B., Plaza Time Bldg.
Seely, Clark W., Plaza Time Bldg.
Sewell, Minor F., 1722 W. 39th St.
Shapiro, Lazare M., 701 E. 63rd St.
Sheahon, John A., 7211 Richmond Ave.
Shecter, Nathan, 701 E. 63rd St.
Shelden, Russell D., 701 E. 63rd St.
Sheldon, John, 6305 Brookside Plaza
Shifrin, Alexander, 6709 Locust St.
Shireman, Kenneth L., 4606 St. John Ave.
Shofstall, Charles K., 300 W. 47th St.
Shuey, Herbert H., 3903 Brooklyn Ave.
Shumate, David L., 3703 Pennsylvania Ave.
Shypper, Moses J., 4738 Oak St.
Simon, Sanford, 701 E. 63rd St.

Sinclair, Alexander B., 920 W. 47th St.
Singleton, J. Milton, 315 Nichols Rd.
Skillman, Robert K., 4635 Wyandotte St.
Skinner, John O., 1402 Bryant Bldg.
Skinner, John T., 1402 Bryant Bldg.
Skoog, Andrew L., 1911 Leman St., S. Pasadena, Calif.
Slentz, Edwin L., 4620 J. C. Nichols Parkway
Slentz, William A., 4620 J. C. Nichols Parkway
Small, Walter L., Hyde Park Hotel
Smith, Arthur B., 830 Argyle Bldg.
Smith, Hubert E., 231 Plaza Time Bldg.
Smith, Ira T., 1019 Professional Bldg.
Smull, Ned W., 5321 Falmouth Rd.
Sneid, Philip, 304 Doctors Bldg.
Snider, Samuel H., 221 Plaza Medical Bldg.
Spafford, Allen L., 1414 Professional Bldg.
Stacey, Wallace R., 1707 Sterling Ave., Independence
Staggs, William A., 822 Argyle Bldg.
Staley, Harry R., 520 Bryant Bldg.
Stanley, Charles G., 522 Professional Bldg.
Starke, Helen, Queen of the World Hospital
Statland, Harry, 701 E. 63rd St.
Statland, Morris, 701 E. 63rd St.
Steffen, Lawrence F., 1220 Professional Bldg.
Stegman, Elmer G., Raytown Clinic, Raytown
Stelmach, Walter J., 7949 State Line Ave.
Stockton, Raymond W., 411 Nichols Rd.
Stockwell, A. Lloyd, 600 Professional Bldg.
Stockwell, Morgan U., 1630 Professional Bldg.
Stotts, Charles S., 330 W. 47th St.
Stratemeier, Edward H., 1010 Rialto Bldg.
Summers, Caldwell B., 222 Plaza Theatre Bldg.
Swisher, Robert C., 425 E. 63rd St.
Switzer, Clyde, R. R. 2, Grandview
Szabados, Ernest D., 10901 Winner Rd., Independence
Tarson, Solomon S., 3221 Troost Ave.
Tasker, Charles B., 730 Professional Bldg.
Teall, Raymond E., 1016 Professional Bldg.
Terrill, Robert S., Plaza Parkway Bldg.
Tesson, James A., 907 Rialto Bldg.
Theel, Otto W., Jr., 4301 Main St.
Thiele, George H., 6526 High Dr.
Thiessen, Edward H., Plaza Parkway Bldg.
Thomas, Christopher Y., Plaza Broadway Bldg.
Thompson, Charles L., 209 Plaza Time Bldg.
Trippe, Harrison C., 6247 Brookside Rd.
Trowbridge, Barnard C., 415 E. 63rd St.
Trowbridge, Ellsworth H., 1040 Mayfield Ave., Winter Park, Fla.
Trowbridge, Ellsworth H., Jr., 1440 Professional Bldg.
Turner, Percy C., 1433 E. 19th St.
Tuthill, Herbert, 1211 Rialto Bldg.
Twin, Edward J., 701 E. 63rd St.
Twyman, Richard A., 4635 Wyandotte St.
Underwood, Dick H., 1109 Bryant Bldg.
Underwood, Harry A., 5100 E. 24th St.
Underwood, Johnson, Jr., 1600 Professional Bldg.
Underwood, Ross H., 1109 Bryant Bldg.
Unger, Harold, 106 Doctors Bldg.
Upsher, Albert E., 909 Argyle Bldg.
Valentine, Herbert S., 1124 Professional Bldg.
Van Biber, James T., 317 W. Kansas Ave., Independence
Van Buskirk, William C., 1416 Professional Bldg.
Van Del, Dwight T., 701 E. 63rd St.
Vilmer, Charles, 1216 Professional Bldg.
Vincent, Jack C., 701 E. 63rd St.
Virden, C. Edgar, 700 Professional Bldg.
Virden, Herbert H., 700 Professional Bldg.
Voth, Harold W., 201 Plaza Bldg.
Wade, Frederick E., 202 Professional Bldg.
Wakefield, Franklin, Jr., 2004 Bryant Bldg.
Walker, James C., 318 Professional Bldg.
Walker, John W., 830 Argyle Bldg.
Wall, Arthur H., 153 Santa Anita, Sierra Madre, Calif.
Wall, Harry C., 751 E. 63rd St.
Wall, Leonard A., 4635 Wyandotte St.
Walthall, Damon O., 315 Nichols Rd.
Ward, Robert L., 4126 St. John Ave.
Watson, Ethel, 501 First National Bank Bldg., Independence
Waxman, David, 4802 Prospect Ave.
Waxman, Jane Z., 4802 Prospect Ave.
Webster, Joseph G., 403 Plaza Parkway Bldg.
Weiford, Edward C., 107 Plaza Broadway Bldg.
Welker, Joseph E., 834 Professional Bldg.
Weltscheff, Christo A., 315 Nichols Rd.
Werner, Franklin C., 522 Professional Bldg.
Wheeler, Charles B., General Hospital 1
Wheeler, John H., 411 Nichols Rd.
White, Charles H., 6736 Holmes Rd.
White, George A., 729 Shukert Bldg.
White, Stoughton F., 4620 J. C. Nichols Parkway
Whiteman, John R., 6314 Brookside Plaza
Whitman, Doyle C., 1003 Sharp Bldg.
Whitmore, J. Stewart, 8816 Fairway Ave.
Wien, Irving A., 321 Argyle Bldg.
Wilhelm, Warren F., 710 Professional Bldg.
Wilkinson, Everett A., 1332 Professional Bldg.
Williams, Delon A., 1252 Stratford Rd.
Williams, Frank R., 4312 J. C. Nichols Parkway
Williams, Joseph C., Jr., 423 E. 63rd St.
Williams, Luke E., 2201 E. 27th St.
Williams, Robert A., 5 Wood St., Phillips, Texas
Williams, Starks J., 2462 Brooklyn Ave.
Williams, Vincent T., 836 Argyle Bldg.
Williamson, George L., 1216 Professional Bldg.
Willits, Lyle G., 1515 Professional Bldg.
Willoughby, Jean B., 5905 Main St.
Wilson, Clifford C., 217 Plaza Time Bldg.
Wilson, Hester J., 233 Plaza Time Bldg.
Winer, Herbert J., 238 Plaza Time Bldg.
Winkelman, Esther B., 7449 Broadway
Winston, Bernard H., 751 E. 63rd St.
Wise, George W., 4620 J. C. Nichols Parkway
Withers, Orval R., 429 Plaza Parkway Bldg.
Wolf, Jack W., 409 E. 63rd St.
Wood, Laurence E., Plaza Time Bldg.
Woods, Harold V., 10901 Winner Rd., Independence
Woods, Walton C., TWA Overhaul Base, Parkville
Wortmann, Robert F., 423 E. 63rd St.
Wright, R. Paul, 1324 Professional Bldg.
Wu, William Q., 314 Doctors Bldg.
Young, James E., 4635 Wyandotte St.
Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kans.
Zellermayer, Jacob, 212 Doctors Bldg.
Zoglin, Nathan M., 927 Argyle Bldg.
Zuber, Harold V., 600 Professional Bldg.

JASPER COUNTY MEDICAL SOCIETY (Joplin)

Allen, David O., 308 Medical Arts Bldg.
Alberty, Omer L., Carl Junction
Barlow, Donal E., Frisco Bldg.
Barnett, Norman H., 701 First National Bldg.
Birsner, Frank H., 1717 River, Carthage
Black, Mervin H., 516 Frisco Bldg.
Blanke, Otto T., 418 Wall St.
Burch, John E., 1345 Crest Dr.
Butterworth, Nelson, 910 Kensington Rd.
Byrd, Homer E., Carthage
Chesney, George W., 2416 E. 12th St.
Cohle, Richard R., Carthage
Collins, Joe E., 225 Frisco Bldg.
Craig, Irwin T., 829 Frisco Bldg.
Crawford, Archie L., 631 Frisco Bldg.
Crispell, Lawrence S., 6th & Pearl Ave.
Curl, Howard, 410 Jackson St.
DeTar, Burleigh E., 410 Jackson St.
DeTar, B. E., Jr., 410 Jackson St.
Douglas, John W., 32nd & Oak Ridge St.
Douglass, Jesse E., 3427 W. Coleman Rd., Kansas City
Eliscue, Juliette M., 2002 Jackson St.
Ferguson, L. H., Jr., 2926 Grand Ave.
Ferguson, Ralph L., Frisco Bldg.
Ferguson, Robert M., Jasper County Health Dept., Webb City
Grantham, Samuel A., Jr., 420 Byers Ave.
Graves, F. Burton, 616 Connor Ave.
Hall, Marvin F., 622 Frisco Bldg.
Hamilton, Eugene H., 302 Medical Arts Bldg.
Holtzman, Samuel, 811 Frisco Bldg.
Hornback, Edward R., 215 Frisco Bldg.
Howard, Walter M., 301 Frisco Bldg.
Hurst, W. W., First National Bldg.
Isbell, Charles H., Carthage
James, Edward D., 710 N. Byers Ave.
Jeans, Virgil, 511 Joplin National Bank Bldg.
Kiehl, Katharine, Miners Bank Bldg.
Kirschman, Robert E., 204 Medical Arts Bldg.
Koehler, John W., Frisco Bldg.
Kuhn, John R., Jr., 321 Frisco Bldg.
Laney, Ronald L., 3158 Skyline Dr., Oceanside, Calif.
Longenecker, Joe L., 612 N. Byers Ave.
McIntire, Emery J., 417 S. Main St., Carthage
McNew, William T., Carthage
McPike, Lloyd H., 607 Frisco Bldg.
Mack, Mary L., Address Unknown
Maddox, John D., 6th & Pearl St.
Meares, Cecil H., Jr., 303 Medical Arts Bldg.
Mitchell, Ernest, Route 1, Goodman
Myers, Roy E., 623 Sergeant St.
Paddock, Charles S., Frisco Bldg.
Papp, Sandor D., Medical Arts Bldg.
Patterson, Donald R., 418 Wall St.
Patterson, Grover S., 506 S. Main St., Carthage
Poor, Carl W., Neosho
Post, Winfred L., 617 Joplin St.
Putnam, John A., Box 603, Carthage
Saylor, Robert K., 3506 Boynton, Cleveland 21, Ohio
Schlicht-Collins, Mabelle, 30 Main St., Webb City
Schoeberl, C. B., Frisco Bldg.
Schulte, G. A., 2125 Jackson Ave.
Scorse, Sidney W., Frisco Bldg.
Simmons, Leroy, Sarcoxie
Sims, John L., 201 N. Jackson Ave.
Smith, Roland T., 426 N. Pearl Ave.
Smith, William R., 304 Grant St., Carthage
Van Urk, Jules B., 414 Grant St., Carthage
Walker, Paul W., Frisco Bldg.
Webster, Roger W., 1070 Cherry Way, Hayward, Calif.
Wetzel, Fred S., Jr., 202 W. 4th St., Carthage
Whitten, M. Foster, 616 W. Centennial Ave., Carthage
Wieman, Harry K., 718 Frisco Bldg.
Wilson, Alice H., 1923 Sergeant St.
Wood, George H., 304 Grant St., Carthage
Wooldridge, Bart F., 401 First National Bldg.
Wright, George W., 222 S. Webb St., Webb City
York, William B., Sarcoxie
Young, Calvin C., Jr., Frisco Bldg.

JEFFERSON COUNTY MEDICAL SOCIETY

Allbee, Roger H., 121 Mississippi Ave., Crystal City
Bolgar, Bertalan, 230 Main St., Festus
Carlton, Irvin F., 208 S. Mill St., Festus
Commerford, James J., Crystal City
Donnell, Harold E., 16 Boyd Ave., DeSoto
Donnell, Robert H., Crystal City
Donnell, Thomas A., DeSoto
Edwards, T. Burton, Cedar Hill
Edwards, Waldo B., 11 N. Taylor Ave., Kirkwood
Fallet, Charles E., DeSoto
Kozal, Francis L., 121 Mississippi Ave., Crystal City
McKinstry, Karl V., DeSoto
Mayfield, James L., P. O. Box 7, Crystal City
Reich, Oliver F., Kimmswick
Rice, Carl E., Hillsboro
Rutledge, John F., Fox Bldg., Crystal City
Senn, Emmett J., Herculaneum
Walton, Marion C., 208 S. Mill St., Festus
Yoskit, Harry, Festus

JOHNSON COUNTY MEDICAL SOCIETY

Cooper, R. Lee, Warrensburg
Damron, Oscar H., 122 E. Market St., Warrensburg
Grove, Gulph W., Knobnoster
Harkness, Harry, Warrensburg

Holmes, David R., 1017 Grosvenor Dr., Crestwood
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg Medical Center, Warrensburg
Lederer, Charles M., Warrensburg Medical Center, Warrensburg
Maxson, T. Reed, Warrensburg
Patterson, William R., Warrensburg
Rawlins, Kelly, Holden

KNOX COUNTY
(North Central Counties Medical Society)

LACLEDE COUNTY
(Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Best, Robert, Higginsville
Brady, Hugh S., Concordia
Brasher, Ben H., Lexington
Buehrer, Cletus E., Lawson
Cook, Thomas B., Richmond
Cope, Joseph S., Lexington
Crozier, Franklin A., Richmond
Devault, George K., Richmond
Fulkerson, Wilbur E., Higginsville
Goldberg, Isadore E., Braymer
Greene, Luther D., Richmond
Johnson, M. C., Richmond
Kelling, Douglas G., Waverly
Kelling, George A., Waverly
Kelling, Jordan, Waverly
Koppenbrink, Walter E., Jr., Higginsville
Lissack, Edmund, Concordia
Liston, Odus, Oak Grove
Martin, Joseph L., 1102 Marcy St., Iowa City, Iowa
Martin, Wilfred E., Odessa
Nisbet, Eliga B., Veterans Administration Hospital, Knoxville, Tenn.
Payne, Bryan T., Lexington
Riley, Ralph W., Lexington
Schooley, Renick C., Odessa
Ward, Joe, Lexington
Watson, Cecil L., Lexington
Williams, John W., Oak Grove

LAWRENCE COUNTY
(Ozarks County Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETY

Bridges, James R., Kahoka
Davis, Landis Y., Canton
Ellery, William L., LaGrange
Jennings, Perry W., Canton

LINCOLN-ST. CHARLES COUNTY MEDICAL SOCIETY
(St. Charles)

Berry, Paul T., Troy
Canty, Eugene J., R. R. 1
Clay, Calvin, 106 Washington St.
Creech, Joseph C., Troy
Crider, Russell J., St. Charles Hotel Bldg.
Damron, Edward O., Elsberry
Fleming, Robert J., 114 N. Main St.
Fong, Richard R., 126 S. Main St.
Hetlage, Louis P., Troy
Jenkins, Joseph M., 117 S. Main St.
Keller, Robert M., N. Main St., Wentzville
Kister, George E., 818 N. Second St.
McIntire, Landon R., 117 S. Main St.
Muschany, Norman K., Troy
Neubeiser, Ben L., 206 Washington St.
Penn, Robert M., Silex
Poggemeier, William H., Jr., 200 Clay St.
Randall, Don Q., 207 N. 5th St.
Roter, Alexander M., St. Charles
Rother, Paul H., 114 N. Main St.
Schneider, Vincent A., 207 N. 5th St.
Shinkawa, Shigeo, 207 N. 5th St.
Towers, Orville W., 114 N. Main St.
Tyler, Wendell H., 200 N. Main St.

LINN COUNTY
(Grand River Medical Society)

LIVINGSTON COUNTY
(Grand River Medical Society)

McDONALD COUNTY
(Ozarks County Medical Society)

MACON COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY
(Mineral Area County Medical Society)

MARIES COUNTY
(Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY
(Hannibal)

Archer, Perry C., Shelbyville
Birney, William P., 1003 Broadway
Burns, Francis R., 226 Broadway
Canella, John M., 707 Broadway
Chilton, James C., 500 Broadway
Ellis, Sam T., R. 2
Francka, W. F., B & L Bldg.
Goodrich, Howard B., Box 1383, Winter Park, Fla.
Greene, Harry L., Holmes Bldg.
Hamlin, Wyeth, 1001 Broadway
Hardesty, Joel W., Holmes Bldg.
Hoerchler, T. J., 3206 Beacon Ave., San Antonio, Texas
Hornback, George A., 500 Broadway
Johnson, Charles R., Lt., M. C., NAS, Navy No. 14, Dispensary, c/o FPO, San Francisco, Calif.
Kibbe, John H., Monroe City
Landau, Daniel B., B & L Bldg.
Lanning, Robert J., B & L Bldg.
Levine, Ervan L., Vandalia
Lichty, Charles A., Shelbina
Lucke, Eugene M., Court House
Murphy, Bernard L., 2000 Crescent Dr.
Reichman, John J., 1001 Broadway
Roller, Merrill J., B & L Bldg.
Smith, Ulysses S., Trust Bldg.
Smith, William J., 507 Hannibal Trust Bldg.
Strong, Richard M., 115 N. 5th St.
Sultzman, Francis E., 115 N. 5th St.
Sweets, Henry H., Jr., 1506 Market St.
Walterschied, John H., 508 Broadway
Well, J. W., Palmyra

MERCER COUNTY
(Grand River Medical Society)

MID-MISSOURI COUNTY MEDICAL SOCIETY
(Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Andreassen, Dimil F., Rolla
Bass, B. J., Salem
Baumann, A. R., Steelville
Bonney, Samuel C., St. James
Breuer, Robert E., Newburg
Butts, James D., Rolla
Carnahan, C. E., Bourbon
Carrington, Howard W., Lebanon
Casey, Shederic A., Lebanon
Crosby, Alice S., Salem
Davis, Harry H., Rolla
Drake, Avery A., Rolla
Elders, Frank A., Jr., Houston
Feind, Earl E., Rolla
Fisher, George E., Lebanon
Froelich, Rae W., Lebanon
Giem, Ross N., Rolla
Grosskreutz, Joseph A., St. James
Hammler, Christiana V., St. James
Hart, Martin M., Salem
Hope, James L., Lebanon
Hunt, Lloyd H., Salem
Hurst, Ben B., Lebanon
Irwin, William F., Leasburg
Jenkins, Paul A., Lebanon
Johnson, Ferrell H., Lebanon
Kimball, Ireland W., Broken Bow, Okla.
Lindsay, John W., Conway
Lytle, William R., Rolla
McDonough, Robert C., St. James
Malouf, George M., Cuba
Miller, Clyde S., Waynesville
Mitchell, Roy E., Salem
Myers, James M., Rolla
Peckham, John W., 327 Baker St., St. Louis (19)
Russell, Barbara E., Rolla
Scott, Elijah A., St. James
Stricker, Emil A., St. James
Summers, Jacob H., Lebanon
Underwood, Millard K., Rolla
Walden, Richard, Bourbon
Weeks, George R., 8810 11th Ave. S., Minneapolis 20, Minn.

MILLER COUNTY MEDICAL SOCIETY

Allee, Warren L., Eldon
Buehler, Carl T., Jr., Eldon
Shelton, Edward O., Eldon

MINERAL AREA COUNTY MEDICAL SOCIETY

(St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve Counties)

Appleberry, Charles H., Rivermines
Brennan, John A., Farmington
Bull, Ben M., Ironton
Carleton, Charles E., Jr., Farmington
Clapsaddle, Clare J., Ste. Genevieve
Cresswell, George F., Potosi
Crouch, F. Richard, Farmington
Evans, Albert L., Bonne Terre
Farrar, C. B., 721 N. Middle, Cape Girardeau
Foster, Jack Lee, Desloge
Gaebe, Harold C., Desloge
Gay, George, Ironton
Grossman, Marvin, Fredericktown
Harland, R. E., Ironton
Haw, Marvin T., Jr., Bonne Terre
Hoctor, Emmett F., Farmington
Huckstep, Robert A., Farmington
Hunt, John W., Jr., Leadwood
Jones, Paul L., Flat River
Karraker, Alvan G., Farmington
Lanning, Richard C., Ste. Genevieve
Menne, Marvin C., Ironton
Michaelis, Charles E., Fredericktown
Mullen, Jack, Bonne Terre
Roebber, Harry M., Bonne Terre
Sexauer, Arthur E., Ste. Genevieve
Slaughter, Shelby C., Fredericktown
Taylor, Byron H., Jr., Flat River
Taylor, Van W., Bonne Terre
Watkins, George L., Jr., Farmington

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY

Fulks, Richard B., California
Gallagher, Lionel M., California
Kibbe, Edgar A., California
Latham, Kenyon S., California
McDonald, Terrence J., Tipton

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MONTGOMERY COUNTY MEDICAL SOCIETY

Andersen, Elmer J. T., Montgomery City
Byland, Samuel J., Wellsville
Helm, James O., New Florence
Hirsch, Albert, Middletown

MORGAN COUNTY MEDICAL SOCIETY

Gunn, Aubrey J., Versailles
Gunn, Jack, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

NEW MADRID COUNTY
(SEMO County Medical Society)

NEWTON COUNTY
(Ozarks County Medical Society)

NODAWAY-ATCHISON-GENTRY-WORTH COUNTIES MEDICAL SOCIETY

Bare, Edward F., Tarkio
Bauman, Henry C., Maryville
Bell, Charles T., Maryville
Blacklock, David E., King City
Byland, Benjamin F., Maryville
Carlin, Albert L., Stanberry
Carpenter, Wallace, Rock Port
Cossins, Carlos E., State Hospital No. 2, St. Joseph
Dunshee, Robert E., Maryville
Humberd, Charles D., Barnard
Imes, Elvin D., Maryville
Jackson, William R., Maryville
Kirk, Charlie W., Hopkins
Matteson, Frank B., Grant City

Niedermeyer, Edward L., Tarkio
Rose, Frank H., Albany
Settle, Emmett B., Rock Port
Wempe, G. Raymond, Maryville

NORTH CENTRAL COUNTIES MEDICAL SOCIETY

(Adair-Schuyler-Knox-Sullivan-Putnam Counties)

Cramb, Arthur B., 711 C. E. Orange, Lakewood, Fla.
English, Milton T., Jr., Kirksville
Freeman, Spencer L., Kirksville
Gerwig, Henry E., Downing
Hart, Pearl V., Coatsville
Hasselblad, Oliver W., Kirksville
Henry, Clifford E., Kirksville
Hilton, Paul E., Kirksville
Holman, Jurney H., Unionville
Hudson, G. R., Kirksville
Humphrey, Henry M., Brashear
Jones, John B., Kirksville
Luman, Frank E., Edina
Montgomery, John S., Milan
Stickler, Ralph O., Kirksville
Sullivan, William J., V. A. Hospital, Davis Park, Providence 8, R. I.
Tarvydas, Francis, Edina
Wimp, J. J., Kirksville

OREGON COUNTY

(South Central Counties Medical Society)

OSAGE COUNTY

(Unorganized)

OZARK COUNTY

(South Central Counties Medical Society)

OZARKS COUNTY MEDICAL SOCIETY

(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

Adriany, Joseph, Mount Vernon
Anderson, Paul B., Neosho
Aubin, Francis W., Branson
Bennett, Joseph D., Branson
Blankenship, George W., Neosho
Bowman, Melvin C., Neosho
Brasher, Charles A., Mount Vernon
Brown, Frederick B., Aurora
Burney, Wallace S., Miller
Capetti, Alex P., Aurora
Carter, James R., Neosho
Coffman, Esther E. L., 1514 13th St. N., Lakeworth, Fla.
Cohnberg, Rosellen E., Monett
Cottrell, Wilson P., Reeds Spring
Cowan, R. D., Aurora
Davis, Paul C., Neosho
Donley, Robert R., Monett
Edwards, Francis L., Monett
Eller, Byron H., 430 Pitsanuloke Rd., Bangkok, Thailand
Evans, Harry T., Branson
Glass, William J., Jr., Monett
Glover, Kenneth, Mount Vernon
Graves, Arthur J., Mount Vernon
Guasch, Joseph S., Mount Vernon
Hellweg, Charles E., Mount Vernon
Hobbs, George H., Mount Vernon
Holmes, Lemuel I., Miller
Holmes, Prince A., Mount Vernon
Imes, Clifford H., 5539 Gravois Ave., Los Angeles, Calif.
Kerr, Frank T., Monett
Lamson, Roy C., Neosho
Langeluttig, Harry V., Mount Vernon
Lentz, Harold C., Neosho
McCallum, A. J. C., Aurora
Magness, William C., Branson
Maples, Floyd H., Mount Vernon
Morrison, T. A., Aurora
Newman, Mary Jane N., Cassville
Olive, George C., Neosho
Price, Charles H., Cassville
Reynolds, James R., Neosho
Roper, Stanley D., Ozark
Royce, J. J., Noel
Russell, James M., Monett
Shumate, L. St. Clair, Reeds Spring
Stokes, Julius B., Excelsior Springs
Sweany, Henry C., Mount Vernon
Taylor, Leo T., Neosho
Threadgill, Jesse M., Forsyth
Whitehead, Frank F., Neosho
Wilson, Daniel R., Mount Vernon
Wommack, Fred L., Crane
Yates, J. Lewis, Mount Vernon

PEMISCOT COUNTY MEDICAL SOCIETY

Acuff, William J., 400 Carleton Ave., Caruthersville
Aquino, Philip J., Caruthersville
Beecher, Sheldon B., District Health Office, Poplar Bluff
Brown, Charles W., 5351 Delmar Blvd., St. Louis
Bryant, William O., Duckworth-Caldwell Clinic, Hayti
Cain, Charles F., 400 Carleton Ave., Caruthersville
Caldwell, Jacob D., 223 S. 3rd St., Hayti
Carlin, Eugene J., Box 127, Holcomb
Chapman, J. R., Steele
Cook, O. W., Caruthersville
Cooke, Francis W., 1403 Davis St., Caruthersville
Cooke, James K., Jr., 6254 Randia Ave., Jacksonville, Fla.
Cooper, Lawrence E., 1274 Hanton St., Fort Myers, Fla.
Denton, Levi D., Hayti
Duckworth, Gordon L., Jr., Hayti
Duckworth, John K., 223 S. 3rd St., Hayti
Grable, James, 120 E. Main St., Portageville
Gubin, Alan S., 106 W. 12th St., Caruthersville
Hensley, Daniel R., Wardell
Kaiser, Clarence D., 1610 S. Lea Ave., Roswell, N. M.
Lamb, Woodrow M., 400 Carleton Ave., Caruthersville
Limbaugh, Walter R., Hayti
McCoy, Warren R., Caruthersville
McKaskle, Clarence W., Caruthersville
Morris, Clyde L., Caruthersville
Phipps, George W., Caruthersville
Poff, Joseph H., Caruthersville
Poff, Nathan L., Caruthersville
Ricketson, George M., U. S. Naval Hospital, Chelsea, Mass.
Shanahan, Eugene R., Caruthersville
Shirey, Arnold G., Hayti
Smith, Robert S., Portageville

PERRY COUNTY MEDICAL SOCIETY

Bredall, Jerome J., Perryville
Carron, Oscar A., Perryville
DeGenova, G. H., Ste. Genevieve
Fairchild, James F., Perryville
Feltz, L. W., Perryville
Fischer, Theodore, Altenburg
Grayson, Richard R., 25 Oleander Court, Sappington Acres
Legner, Stanley G., Perryville
Lutkewitte, Joseph F., St. Marys
McDermott, Alfred E., Perryville
Miller, Oliver J., Cape Girardeau
Quintana, Manuel M., Perryville
Riley, Fred P., Perryville
Utterman, William F., Perryville

PETTIS COUNTY MEDICAL SOCIETY

(Sedalia)

Beckemeyer, William A., 500 W. 16th St.
Bess, William E., 210½ S. Ohio St.
Boger, James W., 500 W. 16th St.
Brady, Charles H., 205 Ilgenfritz Bldg.
Campbell, A. J., 312½ S. Ohio St.
Carlisle, John B., 314 S. Ohio St.
Dyer, David P., 301 Sedalia Trust Bldg.
Edwards, D. R., 700 Limit Ave.
Ewert, J. O., 412½ S. Ohio St.
Fisher, Stanley D., 500½ S. Ohio St.
Gonser, Karl B., 101 S. Ohio St.
Hite, Henry A., Green Ridge
Hopkins, Thomas J., 1609 S. Limit St.
Hopkins, Thomas S., 204 Sedalia Trust Bldg.
Lamy, John E., 509 W. Broadway
Lemire, Robert W., Sedalia Trust Bldg.
Long, Frank B., 322 Gordon Bldg.
Lowe, Alvin L., 1425 S. Grand Ave.
Maddox, Albert R., 116½ W. Main St.
Murray, John W., Warsaw
Osborne, Charles D., 710 W. Broadway
Parkhurst, Charles L., Houstonia
Proctor, Donald C., 418½ S. Ohio St.
Rhodes, Euhlan L., Warsaw
Rodeman, John M., 322 Gordon Bldg.
Siegel, Carl D., 1216 W. 18th St.
Siegel, Peter V., Smithton
Snavely, Edmund C., 202½ S. Ohio St.
Stauffacher, C. Gordon, 700 Limit Ave.
Stewart, Robert H., Bothwell Hospital
Walker, William E., LaMonte
Walter, Archie L., 500 W. 16th St.

PHELPS COUNTY

(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Andrae, Robert L., Louisiana
Barrymore, Eugene, Bowling Green
Beckman, Donald E., Clarksville
Biggs, James B., Bowling Green
Cunningham, Eric A., Louisiana
Hooker, John H., Clarksville
Johnson, Q. Ray, Jr., Louisiana
Lewellen, Charles H., Louisiana
Lewellen, Charles P., Louisiana
Martin, W. Joe, Louisiana
Middleton, John W., Louisiana
Scott, Clive D., Louisiana
Treadway, W. W., Silex
Wilcoxen, William B., Bowling Green

PLATTE COUNTY MEDICAL SOCIETY

Blackwell, Charles W., Platte City
Calvert, Lewis C., Weston
Durham, Silas L., Dearborn
Jennings, Ethlyn C., R. 4, N. Kansas City
Parker, H. Graham, Platte City
Robinson, John A., Edgerton
Thurman, H. C., Parkville

POLK COUNTY

(Dallas-Hickory-Polk County Medical Society)

PULASKI COUNTY

(Mid-Missouri County Medical Society)

PUTNAM COUNTY

(North Central Counties Medical Society)

RALLS COUNTY

(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY

(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY

(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY

(Mineral Area County Medical Society)

RIPLEY COUNTY

(Butler-Ripley-Wayne County Medical Society)

ST. CHARLES COUNTY

(Lincoln-St. Charles County Medical Society)

ST. CLAIR COUNTY

(West Central Missouri Medical Society)

ST. FRANCIS COUNTY

(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY

(Mineral Area County Medical Society)

ST. LOUIS MEDICAL SOCIETY

(St. Louis)

Abell, Walter E., 2253 S. 39th St. 10
Abrams, Morris, 4405 W. Pine Blvd. 8
Acker, Harry L., 6150 Oakland Ave. 10
Ackerman, Lauren V., 600 S. Kingshighway Blvd. 10
Adler, Benard C., 500 N. Skinker Blvd. 5
Agress, Harry, Missouri Theatre Bldg. 3
Ahern, Archibald M., 3915 Watson Rd. 9
Ahlering, George H., 950 Francis Pl., Clayton
Aitken, Louis F., 502 Beaumont Bldg. 8
Albrecht, Franklin H., 245 Union Blvd. 8
Alden, Arthur M., 537 Frisco Bldg. 1
Aldrich, James T., 2621 Franklin Ave. 6
Alexander, Harry L., 600 S. Kingshighway Blvd. 10
Allen, Duff S., 18 S. Kingshighway Blvd. 8
Allen, Henry C., 212 Clayton Medical Bldg. 5
Allen, Hollis N., 404 Missouri Theatre Bldg. 3
Allen, Melvin A., 3701 Grandel Sq. 8

Allen, William M., St. Louis Maternity Hospital 10
Allen, William E., Jr., 720 N. Sarah St. 8
Altheide, J. Paul, 714 University Club Bldg. 3
Alvis, Bennett Y., 100 N. Euclid Ave. 8
Alvis, Edmund B., 100 N. Euclid Ave. 8
Anstey, George, 4660 Maryland Ave. 8
Arneson, A. N., 457 N. Kingshighway Blvd. 8
Arney, William G., 16 Hampton Village Plaza 9
Arnold, Eugene L., 8700 Partridge Ave. 15
Arnold, Roger C., 457 N. Kingshighway Blvd. 8
Aronberg, Lawrence M., 4950 Lindell Blvd. 8
Arst, Herbert E., 1515 Lafayette St. 4
Arzt, Franz, 1790 E. LasOlas Blvd., Ft. Lauderdale, Fla.
AufderHeide, G. Russell, 2326 Noll Dr. 21
Auner, Cecil R., Department of State, Washington 25, D. C.
Austin, Martin G., 119 Summit Ave., Webster Groves
Ayars, Treston R., 817 University Club Bldg. 3
Azzouni, J. N., 8816 Gravois Ave. 23
Backer, Matthias H., Jr., 9423 Deves Dr. 23
Bailey, Drennan, Missouri Theatre Bldg. 3
Bailey, Frank A., 3108 S. Grand Blvd. 18
Bailey, Fred W., 4610 23rd Ave. N., St. Petersburg, Fla.
Balazs, Karl J., 3623 Cleveland Ave. 10
Bandle, Donald F., 5400 Arsenal St. 9
Banet, Samuel R., 7301 St. Charles Rock Rd. 14
Banton, William C., 11 N. Jefferson Ave. 3
Bardenheier, J. Phil, 602 Wall Bldg. 8
Barker, Jesse W., 1504 S. Jefferson Ave. 4
Barnes, Charles R., 3720 Washington Blvd. 8
Baron, William, 3601 S. Jefferson Ave. 18
Barrett, Scott R., 5086 Easton Ave. 13
Bartels, Leo G., 205 Frisco Bldg. 1
Bartlett, Robert W., 100 N. Euclid 8
Bartlett, Willard, Jr., 634 N. Grand 3
Bartnick, Mitchel L., 3895 Holly Hills Blvd. 16
Bassett, Robert B., 5427 Delmar Blvd. 12
Bauer, John D., 2415 N. Kingshighway Blvd. 13
Bauer, Maria, 1935 Edison Ave., Granite City, Ill.
Bauer, Otto, 1935 Edison Ave., Granite City, Ill.
Baumgarten, Walter, Jr., 3720 Washington Blvd. 8
Bawell, Malcolm B., 4660 Maryland Ave. 8
Beare, J. Byron, 401 Beaumont Bldg. 8
Becke, William G., 912 Beaumont Bldg. 8
Becker, Bernard, 640 S. Kingshighway Blvd. 10
Becker, Edward J., 205 Frisco Bldg. 1
Becker, George H., 210 Lister Bldg. 8
Beckette, Edmund S., 320 Lister Bldg. 8
Behrens, Donald T., 4320 Cranford Dr. 21
Beisbarth, Albert, 3606 Gravois Ave. 16
Beisbarth, Carl C., Beaumont Bldg. 8
Bell, Robert M., 640 Beaumont Bldg. 8
Benincasa, Anthony V., 3731 Goodfellow Blvd. 20
Benjamin, Durand, 7430 Virginia Ave. 11
Bennett, Thomas T., 4500 W. Pine Blvd. 8
Berard, Louis N., 984 Arcade Bldg. 1
Berg, Leonard, 4952 Maryland Ave. 8
Berg, Ralph, 3203 S. Grand 18
Bergman, Hugo F., 203 Beaumont Bldg. 8
Bergner, Grace E., 114 N. Taylor Ave. 8
Berland, Harry I., 996 Arcade Bldg. 1
Berman, Joseph P., 7452 University Dr. 5
Berman, William, 462 N. Taylor Ave. 8
Bernard, Harvey R., 600 S. Kingshighway Blvd. 10
Berry, John W., 8034 Crescent Dr. 5
Bersche, Bertram L., 5214 Pernod Ave. 9
Bettonville, Paul J., Jr., 8634 Eulalie Ave. 17
Beyer, Eugene F., 1736 Blue Jay Cove 17
Bieri, Earl J., 514 Metropolitan Bldg. 3
Bilsky, Nathan, 2739 N. Grand Blvd. 6
Bindbeutel, Arthur H., 3953 Holly Hills Blvd. 16
Bindbeutel, D. A., 630 Westborough Pl., Webster Groves
Bing, Richard J., 915 N. Grand Ave. 6
Bircher, John L., 3675 Dover Pl. 16
Birdsall, Thomas C., 4660 Maryland Ave. 8
Birenbaum, Aaron, 607 N. Grand Blvd. 3
Birsner, Louis J., 1232 Missouri Theatre Bldg. 3
Bisno, Daniel, 8000 Bonhomme Rd. 5
Blache, J. Owen, 4924 Lotus Ave. 13
Blair, Vilray P., Jr., 100 N. Euclid Ave. 8
Blalock, William N., 114 N. Taylor Ave. 8
Bleyer, Adrien S., 817 University Club Bldg. 3
Block, Arnold S., 1041 Missouri Theatre Bldg. 3
Bock, Lux H., 1504 S. Grand Blvd. 4
Bockelman, Clifford H., 2615 Brentwood Blvd. 17
Boedeker, Roy V., 100 N. Euclid Ave. 8
Boemer, Lilburn C., 517 Beaumont Bldg. 8
Boggs, Roy E., 2601 N. Whittier St. 13
Bohne, William R., 4500 Olive St. 8
Bohrer, Harry C., 315 University Club Bldg. 3
Boldizar, Albert G., 1022 Beaumont Bldg. 8
Boldt, Thomas H., 6000 W. Florissant 20
Bondurant, Bryce H., 153 Huntleigh Dr. 22
Bonfanti, Albert L., 3225 Longfellow Blvd. 4
Boughn, J. Kent, 1515 Lafayette St. 4
Bowdern, Edward H., 2 Berkshire 17
Bowerman, Harold H., 823 University Club Bldg. 3
Bowersox, Warren A., 100 N. Euclid Ave. 8
Boyd, Arthur M., 1703 S. Grand Blvd. 4
Bradley, Frank R., 600 S. Kingshighway Blvd. 10
Bradley, Richard V., 100 N. Euclid Ave. 8
Bremser, Harry L., 1105 Tower Grove Ave. 10
Brennan, Robert A., 406 South Side National Bank Bldg. 16
Brennan, Robert V., 637 W. Adams 22
Brereton, Robert L., 206 N. Clay St. 22
Bricker, Eugene M., 100 N. Euclid Ave. 8
Brielmaier, Charles R., 5609 Rosa St. 9
Brockelmann, Erich, 719 Metropolitan Bldg. 3
Brodeur, Armand E., 141 Horseshoe Dr. 22
Bronson, Shael S., 100 N. Euclid Ave. 8
Brookes, Henry S., Jr., 37 Algonquinwood Pl. 19
Brookes, Robert D., 4652 Maryland Ave. 8
Brooks, Arthur C., 60 Kingsbury Pl. 12
Broun, Goronwy O., 1325 S. Grand Blvd. 4
Broun, Goronwy O., Jr., 5290 Waterman 8
Brown, E. Eugene, 379 N. Taylor Ave. 8
Brown, James B., 100 N. Euclid 8
Brown, Seymour, 2 Ricardo Lane 24
Bruce, Helen L., 3263 Hawthorne Blvd. 4
Bryan, James H., 950 Francis Pl. 5
Bryan, William T. K., 950 Francis Pl. 5
Budd, John J., Jr., 9929 Manchester Rd. 22
Bukantz, Samuel C., 201 S. Central Ave. 5
Bulger, Harold A., 4405 W. Pine Blvd. 8
Burford, Cyrus E., 958 Arcade Bldg. 1
Burford, E. Humber, 958 Arcade Bldg. 1
Burke, Robert J., 6484 Murdoch Ave. 9
Burkhardt, Edward F., 1325 S. Grand Blvd. 4
Burns, Francis J., 4660 Maryland Ave. 8
Burns, Stanley S., 823 Missouri Theatre Bldg. 3
Burris, Stanley A., 216 S. Kingshighway Blvd. 9
Burst, Donald O., 6757 Plainview Ave. 9
Busch, Anthony K., 5300 Arsenal St. 9
Butcher, Harvey R., Jr., 600 S. Kingshighway Blvd. 10
Byars, Louis T., 100 N. Euclid 8
Byrne, John E., 4660 Maryland 8
Caciolo, Carlo, 1325 S. Grand Blvd. 4
Caldwell, Fred T., Jr., 600 S. Kingshighway Blvd. 10
Calkins, Delevan, 8505 Delmar Blvd. 24
Calodney, Martin M., 7247 Delmar Blvd. 5
Camel, H. Marvin, 310 Tanglewood Dr. 24
Campbell, Cecil S., 952 Arcade Bldg. 1
Campos, Francisco J., 100 N. Euclid Ave. 8
Cannon, Edward M., 714 University Club Bldg. 3
Cappel, Powel B., 3284 Ivanhoe St. 9
Caravelli, Anthony F., 8015 Audrain Dr. 21
Carlin, M. Richard, 4952 Maryland Ave. 8
Carlson, Arne E., 915 N. Grand Blvd. 6
Carney, Joseph E., Jr., 525 Frisco Bldg. 1
Carr, Archie D., 215 Beaumont Bldg. 8
Carroll, George A., 607 N. Grand Blvd. 3
Carroll, Grayson, 3720 Washington Blvd. 8
Carter, William W., 35 N. Central Ave. 5
Cason, Elbert H., 4401 Hampton Ave. 9
Cassel, Melvin A., 2801 N. Taylor Ave. 15
Cassidy, Leslie D., 4952 Maryland Ave. 8
Catanzaro, Anthony F., 6525 Itaska Ave. 9
Cantanzaro, Francis J., 1209 Lockett Lane 22
Chamness, James T., 3 Town & Country Dr. 24
Charles, Benjamin H., 912 Beaumont Bldg. 8
Charles, Cecil M., 110 S. Central Ave. 5
Charnas, Raymond M., 727 Missouri Theatre Bldg. 3
Cherre, Anthony J., Humboldt Bldg. 3
Cherre, Charles J., 10 Haddington Court 24
Chieffi, Margaret, 735 Beaumont Bldg. 8
Ciapciak, Stanley J., 1901 Madison St. 6
Cibis, Paul A., 640 S. Kingshighway Blvd. 10
Clancy, James F., 424 University Club Bldg. 3
Clark, James F., 864 Hamilton Ave. 12
Cleary, Frank, 1935 Park Ave. 4
Cleveland, Horace F., 1325 Somerset Pl., Long Beach 7, Calif.
Clithero, William H., 906 Carleton Bldg. 1
Cloyd, Mason D., 914 N. Taylor Ave. 8
Coates, Thomas A., 1200 S. Big Bend Blvd. 17
Coffin, Ernest L., Portage, Maine
Cohen, Benjamin H., 138 N. Meramec Ave. 5
Cohen, Louis, Lister Bldg. 8
Colbert, James W., Jr., 1402 S. Grand Blvd. 4
Collodi, George A., 20 S. Cote Rd. 17
Comens, Ruth C., 6150 Oakland Ave. 10
Connor, John J., 433 Metropolitan Bldg. 3
Conrad, Adolph H., Jr., 512 Beaumont Bldg. 8
Conrad, Marshall B., 41 N. Central Ave. 5
Cook, Jerome E., 4409 W. Pine Blvd. 8
Cook, Ralph L., 7135 Kingsbury Pl. 5
Cooper, Henry T., 115 Paul Brown Bldg. 1
Cooper, Thomas J., 100 N. Euclid Ave. 8
Copher, Glover H., 600 S. Kingshighway Blvd. 10
Cordonnier, Justin, 4960 Audubon Ave. 10
Cornell, John C., 5005 Gravois Ave. 16
Correnti, Nicholas A., 100 N. Euclid Ave. 8
Costa, Dominic V., 16 Hampton Village Plaza 9
Costello, Cyril J., 100 N. Euclid Ave. 8
Costello, Joseph P., 4952 Maryland Ave. 8
Costello, Joseph P., Jr., 57 Berkshire Ave. 17
Costen, James B., 722 Beaumont Bldg. 8
Coughlin, Bertrand D., 333 Metropolitan Bldg. 3
Cox, Mary E., 4500 W. Pine Blvd. 8
Crego, Clarence H., Jr., 1033 Missouri Theatre Bldg. 3
Crossen, Robert J., 65 Fair Oaks 17
Crossman, Robert W., 1509 Holly Dr. 19
Crowell, Hugh C., 9764 Tesson Ferry Rd. 23
Culkin, Thomas R., 4100 Upton Ct. 16
Cummings, James H., 424 N. Euclid 8
Cutler, Harold M., 1018 Beaumont Bldg. 8
Czebrinski, Edward W., 3701 Grandel Sq. 8
Daake, John W., 48 Portland Pl. 8
Dahms, Gustave, 1452 S. Grand Blvd. 4
Dalton, Arthur R., 121 Lister Bldg. 8
Daman, George A., 5203 Chippewa St. 9
Dames, Richard J., 7735 Brookline Tr. 17
Danis, Peter G., 35 N. Central Ave. 5
Dankner, Arnold, 110 S. Central Ave. 5
Davidson, John D., 600 Union Blvd. 8
Davie, Joseph, 4615 Lindell Blvd. 8
Davis, Frank L., 620 University Club Bldg. 3
Davis, Martin W., 490 Oakwood St. 19
Davis, Myron W., 718 Beaumont Bldg. 8

Day, Anthony B., 1017 Beaumont Bldg. 8
Deakin, Rogers, 436 University Club Bldg. 3
Demko, Frank, 1321 S. Broadway 4
Demko, William, Box 790, R. 6 23
DePew, Heber B., 1446 S. Grand Blvd. 4
Devine, John B., 16 Hampton Village Plaza 9
Devine, Joyce E., 1465 S. Grand Blvd. 4
Diehr, Alvin H., 845 Missouri Theatre Bldg. 3
DiLeo, Senatro W., 950 Francis Pl. 5
Dmytryk, Eugene T., 518 University Club Bldg. 3
Dodd, Robert B., 600 S. Kingshighway Blvd. 10
Donahoe, James L., 7336 Princeton Pl. 5
Donaldson, Robert C., 915 N. Grand Blvd. 6
Dooley, Thomas A., 4402 McPherson Ave.
Dorsett, E. Lee, 8505 Delmar Blvd. 24
Doubek, John C., 2767 Gravois Ave. 18
Doubek, John C., Jr., 1515 Lafayette St. 4
Doyle, Charles R., 906 Missouri Theatre Bldg. 3
Drace, Charles C., 3702 Gravois Ave. 16
Drace, Charles C., Jr., 19 E. Lockwood Ave. 19
Drake, Truman G., 114 N. Taylor Ave. 8
Drake, William L., Jr., 307 S. Euclid Ave. 10
Drews, Leslie C., 516 Metropolitan Bldg. 3
Drey, Norman W., 634 N. Grand Blvd. 3
Dreyer, Carl J., 204 Kingsville Ct. 19
Dripps, Roy C., 7702 Ivory Ave. 11
Drum, Clarence G., 1927 N. Union 13
Duden, Charles W., 1011 Beaumont Bldg. 8
Duemler, John H., 1504 S. Grand Blvd. 4
Dunham, Richard B., 826 Beaumont Bldg. 8
Dworkin, Saul, 1657 S. Grand Blvd. 4
Dyer, Dallas J., 3915 Watson Rd. 9
Eades, Dee W., 7602 S. Broadway 11
Eagleton, Mark D., 950 Francis Pl. 5
Earp, Ralph K., 912 Beaumont Bldg. 8
Eberle, John P., 7 Glenhaven Dr. 19
Eberle, Vincent L., 4952 Maryland Ave. 8
Echterhoff, Harry R., 945 Missouri Theatre Bldg. 3
Eck, Birkle, 19 Deercreek Woods 5
Eckert, Clarence T., 601 Humboldt Bldg. 3
Ecklund, Archibald M., Medical Dept., Naval Training Center, Great Lakes, Ill.
Edele, Eugene H., 4971 Chippewa St. 9
Edwards, Joseph C., 1018 Beaumont Bldg. 8
Egley, Loren E., 67 Frederick Lane 22
Eidmann, Walter P., 3146 Morganford Rd., 16
Eigel, Edwin G., 3209 S. Grand Blvd. 18
Eimer, Charles E., 462 N. Taylor Ave. 8
Ellersieck, Dorothy M., 10695 Bellefontaine Rd. 15
Elliott, Gladden V., 510 S. Kingshighway Blvd. 10
Emmert, Fred V., 713 Metropolitan Bldg. 3
Engleman, Reinhold, 1434 Chambers Rd. 21
Engman, Martin F., Jr., 601 Beaumont Bldg. 8
Epp, George J., 3807 Bowen St. 16
Erlanger, Herman, 507 S. Euclid Ave. 10
Erlanger, Joseph, 5127 Waterman Ave. 8
Ernst, Edwin C., 100 Beaumont Bldg. 8
Ernst, Edwin C., Jr., 100 Beaumont Bldg. 8
Ernst, Richard E., 100 Beaumont Bldg. 8
Ernst, Roland P., 3720 Washington Ave. 8
Eskeles, Irwin H., 4500 Olive St. 8
Esker, George, Missouri State Hospital 3, Nevada
Esslinger, Arthur T., 457 N. Kingshighway Blvd. 8
Eto, Jackson, 634 N. Grand Blvd. 3
Eyermann, Charles H., 1102 Missouri Theatre Bldg. 3
Farley, William M., 3108 S. Grand Blvd. 18
Farrar, John T., 78 Mayo Ave., Greenwich, Conn.
Farrell, Robert J., 624 N. Union Blvd. 8
Farris, William W., 3505 N. Grand Blvd. 7
Fehlman, Bernard F., Jr., 306 S. Euclid Ave. 10
Feinstein, Leon A., 407 N. 8th St. 1
Feldman, David, 601 Humboldt Bldg. 3
Feller, Harold H., 2739 N. Grand Blvd. 6
Fellhauer, Carl M., 950 Francis Pl. 5
Ferguson, Thomas B., 600 S. Kingshighway Blvd. 10
Finger, Donald H., 4652 Maryland Ave. 8
Finn, Murray E., 518 Frisco Bldg. 1
Finnegan, Frank R., 201 Humboldt Bldg. 3
Finnegan, Joseph V., 1106 Missouri Theatre Bldg. 3
Fischer, Erich, 10 Pasteur Bldg. 8
Fish, Virgil O., 2500 Town & Country Lane 22
Fitzgerald, Leo P., 6677 Delmar Blvd. 5
Fitzgerald, William T., 3915 Watson Rd. 9
Flance, Israel J., 4652 Maryland Ave. 8
Flavan, David B., 401 Humboldt Bldg. 3
Fleishman, Alfred, 462 N. Taylor Ave. 8
Fletcher, Paul F., 517 Missouri Theatre Bldg. 3
Flotte, Bernard H., 2435 N. Grand Blvd. 6
Flotte, Sylvester A., 8700 Riverview Blvd. 21
Flynn, Edward P., 508 N. Grand Blvd. 3
Flynn, John T., 1715 S. 39th St. 10
Flynn, Joseph E., 1617 S. Brentwood Blvd. 17
Ford, Lee T., Jr., 45 Green Acres 15
Forrester, James W., 5535 Delmar Blvd. 12
Forsen, James A., 401 Wall Bldg. 8
Forster, Armand C., 1504 S. Grand Blvd. 4
Forti, John J., 4703 Carter Ave. 15
Foster, Howard M., 2025 North & South Rd. 14
Foster, Leon, 727 Missouri Theatre Bldg. 3
Fox, Robert E., 4161 Lindell Blvd. 8
Frank, Adolph M., 3701 Grandel Sq. 8
Franklin, Max S., 727 Missouri Theatre Bldg. 3
Freedman, Harold, 717 University Club Bldg. 3
Freedman, Ruth S., 607 N. Grand Blvd. 3
Freeman, David M., 7316 Kingsbury Ave. 5
Freiermuth, Leo J., Jr., Medical Corps, U.S.A.F., Patrick Air Force Base, Fla.
Freimuth, L. E., 217 University Club Bldg. 3
Frerking, Herbert W., 5535 Delmar Blvd. 12
Freund, Newton M., 1119 Surrey Hill 15
Freund, Samuel J., 4409 W. Pine Blvd. 8
Friedman, Bernard, 601 Humboldt Bldg. 3
Fries, Armand D., 974 Arcade Bldg. 1
Fries, John W., 2520 Grove Brook Dr.
Fries, William A., 3840 Fillmore Ave. 16
Friskel, Arthur K., 7422 Devonshire Ave. 19
Fritschel, Godfrey C., 3306 S. 13th St. 18
Fryer, Minot P., 200 Doctors Bldg. 8
Funsch, Edwin C., 614 Beaumont Bldg. 8
Funsch, Robert E., 894 Alanson Dr. 24
Furla, Gus J., 1773 High School Dr. 17
Furlow, Leonard T., 530 Beaumont Bldg. 8
Gaffney, Caldwell J., 4259 E. Ashland Ave. 15
Gafney, George T., 7260 Pershing Ave. 5
Galbraith, Charles J., 1325 S. Grand Blvd. 4
Gale, Philip R., 125 Orchard Ave. 19
Gallagher, John F., 1440 Spoede Rd. 24
Gallivan, Edward L., 7101 Princeton Ave. 5
Gandlmayr, Jack M., 7334 Forsyth Blvd. 5
Gansloser, Maximilian W., 3624 Arsenal St. 16
Gansloser, Wilbert M., 950 Francis Pl. 5
Garfinkel, Bernard T., 457 N. Kingshighway Blvd. 8
Gay, Lee P., 515 E. High St., Jefferson City
Geise, August W., Jr., 5535 Delmar Blvd. 12
Gerst, Aloysius C., 8700 Riverview Blvd. 21
Gibbons, Edward H., 3608 S. Grand Blvd. 18
Gibson, Helen F., 5612 Cates Ave. 12
Gildea, Edwin F., 4940 Audubon Ave. 10
Gildea, Margaret C. L., 4500 W. Pine Blvd. 8
Gilden, Jerome J., 100 N. Euclid Ave. 8
Gillespie, William J., 634 N. Grand Blvd. 3
Gissy, Charles J., 617 Metropolitan Bldg. 3
Gladney, John H., 4903 Easton Ave. 13
Glaser, Martin J., 420 Mississippi Valley Trust Bldg. 1
Glassberg, Bertrand Y., 5850 Waterman Ave. 12
Glennon, William P., 634 University Club Bldg. 3
Glick, Harry N., 1504 S. Grand Blvd. 4
Gnade, Albert J., 3606 Gravois Ave. 16
Goebel, Joan M., 5128 Jamieson St. 9
Goldenson, Max J., 433 Metropolitan Bldg. 3
Goldfarb, Alvin, 23 Bon Hills Dr. 24
Goldman, Alfred, 1215 Missouri Theatre Bldg. 3
Goldman, Melvin L., 1215 Missouri Theatre Bldg. 3
Goldring, Sidney, 216 S. Kingshighway Blvd. 10
Gorla, Wayne O., 100 N. Euclid Ave. 8
Gradwohl, R. B. H., 3514 Lucas Ave. 3
Graneto, Joseph A., 5521 S. Broadway 11
Grant, Samuel B., 114 N. Taylor Ave. 8
Graul, Elmer G., 2838 S| Grand Blvd. 18
Graul, Walter P., Beaumont Bldg. 8
Grebel, Clement B., 16 Hampton Village Plaza 9
Greditzer, Arthur S., 4500 W. Pine Blvd. 8
Green, Daniel, 8877 Ladue Rd. 24
Greiner, Theodore, 7507 Washington Blvd. 5
Griggs, James Y., 3253 Sulphur Ave. 9
Grindon, Joseph B., Jr., 1103 Missouri Theatre Bldg. 3
Grogan, Frank M., 813 Missouri Theatre Bldg. 3
Gross, Joseph L., 950 Francis Pl. 5
Grueb, Paul M., 3402 California 18
Gruenfeld, Gerhard E., 201 Lister Bldg. 8
Grybinas, Vytautas J., M.H.C.S. First Inf. Div., Fort Riley, Kans.
Guccione, Joseph B., 2801 N. Taylor Ave. 15
Gulick, Charles R., 100 N. Euclid Ave. 8
Gum, William R., 2227 S. Broadway 4
Gummels, Belmont, 7359 Dale Ave. 17
Gundlach, Arthur, 2202 University St. 7
Gunn, Walter T., 4617 Dahlia Ave. 16
Guze, Lucien B., Wilshire & Sawtelle Blvd., Los Angeles 25, Calif.
Guze, Samuel B., 600 S. Kingshighway Blvd. 10
Gzell, Ronald, 5189 Kensington Ave. 8
Hackmeyer, Rubin, 4065 S. Grand Blvd. 18
Haddock, James N., 111 Firwood Dr. 19
Haffner, Heinz, 3720 Washington Ave. 8
Hagan, Daniel J., 3915 Watson Rd. 9
Hagebusch, Omer E., 100 N. Euclid Ave. 8
Hall, Andy, Jr., 301 University Club Bldg. 3
Hall, Lee A., 35 N. Central Ave. 5
Hall, Preston C., 4243 Lafayette St. 10
Hall, Robert A., 43 Washington Tr. 12
Hamilton, Eugene G., 8505 Delmar Blvd. 24
Hammond, John J., 734 Missouri Theatre Bldg. 3
Hampton, Henry E., 2328 Market St. 3
Hampton, Stanley F., 1018 Beaumont Bldg. 8
Hanford, Wesley W., 601 University Club Bldg. 3
Hankin, Norman M., 4401 Hampton Blvd. 9
Hanlon, C. Rollins, 1325 S. Grand Blvd. 4
Hanna, Richard E., 5535 Delmar Blvd. 12
Hansel, French K., 1222 Missouri Theatre Bldg. 3
Hansen, David M., 1608 Oriole Lane 17
Hanser, S. Albert, 924 Arcade Bldg. 1
Hanser, Theodore H., 3701 Grandel Sq. 8
Hardy, Joseph A., 4952 Maryland Ave. 8
Harell, Alex, 216 Wall Bldg. 8
Harford, Carl G., 600 S. Kingshighway Blvd. 10
Harkin, James C., 600 S. Kingshighway Blvd. 10
Harkins, William B., 218 Beaumont Bldg. 8
Harmann, Martin F., 206 Lindell Trust Bldg. 6
Harper, Fleming B., 600 S. Kingshighway Blvd. 10
Harris, Charles W., 5298 Page Blvd. 13
Harris, Solon P., 6826 Natural Bridge Ave. 20

Harrison, Lee B., 44 Ridgemoor Dr. 5
Harting, Hugh R., 3715 Washington Ave. 8
Hartman, Paul T., 6376 Clayton Rd. 17
Hartmann, Alexis F., 500 S. Kingshighway Blvd. 10
Hartnett, Leo J., 950 Francis Pl. 5
Hartstein, Jack, 1515 Lafayette Ave. 4
Hartwig, John A., 2807 N. Grand Blvd. 7
Hassett, Henry A., 529 University Club Bldg. 3
Hawk, Bray O., 4660 Maryland Ave. 8
Hawker, William D., 16 Hampton Village Plaza 9
Hawkins, George L., Jr., 100 N. Euclid Ave. 8
Hayden, Loyola F., 730 Hodiamont St. 12
Hayek, Wesley E., 8700 Riverview Blvd. 21
Haynes, James W., 404 Missouri Theatre Bldg. 3
Haynes, Pugh, Jr., 3720 Washington Blvd. 8
Heideman, Alvah G., 723 Metropolitan Bldg. 3
Heifetz, Carl J., 457 N. Kingshighway Blvd. 8
Heinbecker, Peter, 600 S. Kingshighway Blvd. 10
Helbing, Harry H., 5475 Cabanne Ave. 12
Henderlite, John W., 408 Lister Bldg. 8
Henke, Charles F., 3109 S. Grand Blvd. 18
Hennelly, John J., 16 Hampton Village Plaza 9
Henschel, Eugene V., 4401 Hampton Ave. 9
Herman, Morris, 3701 Grandel Sq. 8
Herrick, Harold G., LaGrange
Heusler, Anton F., 5400 Arsenal St. 9
Hewitt, Walter R., 7649 Delmar Blvd. 5
Heyer, Oscar C., 7223 S. Broadway 11
Hickey, Robert F., 916 Missouri Theatre Bldg. 3
Hildreth, H. Rommel, 950 Francis Pl. 5
Hines, Arthur A., 10695 Bellefontaine Rd. 15
Hobart, Carl A., 3601 Gravois Ave. 16
Hodges, Fred J., III, 510 Kingshighway Blvd. 10
Hoefer, Walter H. V., 3108 S. Grand Blvd. 18
Hoffmann, Augustin D., 6222 Delor St. 9
Hofstatter, Leopold, 258 Hampton Village Medical Center 9
Hofstatter, Lilli, 10053 Lakeside Dr. 23
Holbrook, Charles K., 9901 Diamond Dr. 15
Holdenried, William E., 4131 Tholozan Ave. 16
Hollo, Vencel W., 4960 Laclede Ave. 8
Holt, Earl P., Jr., 7160 Washington Blvd. 5
Holtz, Alan S., 816 Beaumont Bldg. 3
Homan, J. S., 8641 Moran Dr. 21
Honich, Nicholas J., 8902 Riverview Blvd. 21
Horner, John L., 114 N. Taylor Ave. 8
Horwitz, Irwin B., 100 N. Euclid Ave. 8
Hosto, Leland E., 4909 Lindenwood Ave. 9
Houston, Vincent T., 7820 Carondelet Ave. 5
Hrdlicka, Victor E., 1020 Missouri Theatre Bldg. 3
Huber, Erwin T., 111 S. Meramec St. 5
Huck, Richard F., 429 Missouri Theatre Bldg. 3
Huggins, Albert M., 734 Missouri Treatre Bldg. 3
Hulbert, Bernard, Pasteur Medical Bldg. 8
Hummel, Anton J., 5203 Chippewa St. 9
Humphrey, Harvey A., 510 S. Kingshighway Blvd. 10
Humphrey, James, 7200 Manchester Rd. 17
Hutchinson, James H., Jr., 114 N. Taylor Ave. 8
Hutto, A. Herman, 105 Lister Bldg. 8
Hutton, Joseph L., R. 9, Lemay 23
Hyman, Anna, 5400 Arsenal St. 9
Hyndman, Charles E., 614 Beaumont Bldg. 8
Inkley, John J., 5203 Chippewa St. 9
Israel, Milton R., 311 Hillside Ave. 19
Ittner, George W., Jr., 901 Beaumont Bldg. 8
Izmirlian, Grant, 731 E. Big Bend Blvd. 19
Jacobs, Charles C., 878 Melvin St. 15
James, Norman A., 8321 N. Broadway 15
James, William M., 1030 Beaumont Bldg. 8
Janney, James G., Jr., 35 N. Central Ave. 5
Jaudon, Joseph C., 7803 Clayton Rd. 17
Javaux, Everett J., 405 University Club Bldg. 3
Jean, J. Ted, 4500 W. Pine Blvd. 8
Jensen, J. Ernest, 616 University Club Bldg. 3
Johnson, David S., 1430 Carroll St. 4
Johnson, Mitchell D., 40 N. Florissant Rd. 21
Johnstone, John, Jr., 109 W. Jefferson Ave. 22
Jones, Andrew B., 322 Beaumont Bldg. 8
Jones, Augustin, 634 N. Grand Blvd. 3
Jones, Grey, 215 Lister Bldg. 8
Jones, Otey S., 3616 S. Broadway 18
Jones, Richard A., 332 Calvert St. 19
Jones, Vincent L., 645 Missouri Theatre Bldg. 3
Jordan, Edward J., 412 Nichols Bldg. 4
Jordan, Walter R., 3903 Olive St. 8
Jorel, Louis E., 689 E. Big Bend Blvd. 19
Jorstad, Louis H., 411 Beaumont Bldg. 8
Joslyn, Harold L., 521 Missouri Theatre Bldg. 3
Jost, Charles A., 6000 W. Florissant Ave. 20
Judy, Joseph, 212 S. Florissant Ave. 21
Jungk, Carl G. W., 3827 Flora Pl. 10
Kamakas, Nicholas, 937 Airport Rd. 21
Kane, Clyde E., 706 Walton Ave. 8
Kane, R. Emmet, 1117 N. Grand Blvd. 6
Kaplan, Albert, 726 Country Club Dr. 21
Kappesser, Netajean B., 7044 Lindell Blvd. 5
Kappesser, Roland C., 7044 Lindell Blvd. 5
Karandjeff, A. D., 811 Metropolitan Bldg. 3
Karl, Michael M., 4652 Maryland Ave. 8
Kaskie, Clifford R., 35 N. Central Ave. 5
Katz, Samuel D., 825 Midland Ave. 5
Keeble, Charles B., 37 Villawood Lane 19
Keenoy, John J., 501 Metropolitan Bldg. 3
Keffler, Karl L., 1139 Bellevue Blvd. 17
Kehoe, John J., 4145 St. Louis Ave. 15
Keim, John P., 2730 McNair Ave. 18
Keller, Joseph M., 416 Metropolitan Bldg. 3
Keller, Louis, 35 N. Central Ave. 5
Keller, Maurice J., 3701 Grandel Sq. 8
Kellett, John G., 243 Kenora Ct. 19
Kelley, Isaac D., Jr., 476 N. Kingshighway Blvd. 8
Kelley, Robert W., 622 Beaumont Bldg. 8
Kelly, R. Emmet, Lindberg & Olive St. Rd.
Kennedy, Francis L., 19 Thorndell Dr. 17
Kerr, David N., 950 Francis Pl. 5
Kettelkamp, George D., 4931 Potomac St. 9
Keyes, Edward L., 100 N. Euclid Ave. 8
Kieffer, Roland S., 100 N. Euclid Ave. 8
Kieffer, Victor B., Jr., 100 N. Euclid Ave. 8
Kienzle, Edward C., 4075 S. Grand Blvd. 11
King, Francis C., 9929 Manchester Rd. 22
King, James P., 1465 S. Grand Blvd. 4
King, John V., 689 E. Big Bend Rd. 19
King, Samuel J., 800 Carleton Bldg. 1
Kinner, Helmuth M., 6137 S. Grand Blvd. 11
Kinsella, Dalton L., Jr., 444 E. 68th St., New York 21, N. Y.
Kinsella, Ralph A., 415 Beaumont Bldg. 8
Kinsella, Ralph A., Jr., 6305 Westminster Pl. 5
Kirchner, Walter C. G., 7452 Wise Ave. 17
Kirstein, Melvin B., 950 Francis Pl. 5
Kirtz, Louis P., 950 Francis Pl., Clayton
Kissane, John M., 660 S. Kingshighway Blvd. 10
Kistner, William F., 7843 Gannon Ave. 24
Klaff, Daniel D., 309 Beaumont Bldg. 8
Klein, Andrew G., 2959 Milton Blvd. 4
Klein, Arnold G., 2632 S. Kingshighway Blvd. 9
Klein, Arthur, 26 Sparrow St., W. Roxbury 32, Mass.
Klein, Bert, 2632 S. Kingshighway Blvd. 9
Klein, Harry A., 5074 N. Union Blvd. 15
Kleinschmidt, Clinton, 7624 Maryland Ave. 5
Klenk, Charles L., 420 Metropolitan Bldg. 3
Klinge, Frederick W., 16 Hampton Village Plaza 9
Klippel, Bernhardt W., 3701 Grandel Sq. 8
Klym, Nicholas, 3626 N. 11th St. 7
Kneal, E. Ellsworth, 921 Missouri Theatre Bldg. 3
Knese, Luke A., 1506 Hodiamont Ave., 12
Knight, Franklin P., 9746 Colony Dr. 15
Knight, William A., Jr., 4161 Lindell Blvd. 8
Knoke, Frederick W., Jr., 4535 Wabash Ave. 9
Knotts, Halleck S., Valley Forge Army Hospital, Phoenixville, Pa.
Knowlton, Norman P., Jr., 14 Oakleigh Lane 24
Koenig, George H., 5135 31st Ave. S., St. Petersburg, Fla.
Koenig, Karl F., 732 Beaumont Bldg. 8
Kohler, Eugene J., 4968 Delmar Blvd. 8
Kohler, Louis H., 5300 Arsenal St. 9
Komanetsky, W. M., 6400 Morganford Rd. 16
Koon, Bernard T., 4268 Delor St. 16
Kopp, Leonard J., 7844 Madison Dr. 14
Korn, Robert L., 8230 Forsyth Blvd. 24
Kotner, Lawrence M., 4409 W. Pine Blvd. 8
Kountz, William B., 415 Lister Bldg. 8
Kouri, Martin F., 4475 W. Pine Blvd. 8
Koutsoumpas, William V., 3024 Hawthorne Blvd. 4
Kowert, Edward H., 100 N. Euclid Ave. 8
Kraft, Edward O., 2019 St. Clair Ave. 17
Kramer, Fred, 4161 Lindell Blvd. 8
Kramolowsky, Helmuth H., 986 Arcade Bldg. 1
Kraner, Justin F., 4409 W. Pine Blvd. 8
Krause, G. Lynn, 614 Beaumont Bldg. 8
Krebs, Joseph M., 950 Francis Pl. 5
Krebs, Otto S., 207 Beaumont Bldg. 8
Kromer, Charles, 7301 Raleigh St. 23
Kubitschek, Paul F., 207 Beaumont Bldg. 8
Kuebrich, Thomas C., 111 Church St. 21
Kurz, Rudolph F., 1148 Pierce Bldg. 2
Kutryb, Walter J., 6000 W. Florissant Ave. 20
Ladd, Charles B., 7430 Virginia Ave. 11
LaDriere, Raymond J., 35 N. Central Ave. 5
Lakes, John D., 706 S. State St., Litchfield, Ill.
Lam, Robert L., 100 N. Euclid Ave. 8
Lamb, Wanda, 4500 W. Pine Blvd. 8
Landau, William M., 640 S. Kingshighway Blvd. 10
Landree, James C., Melbourne Hotel 8
Lane, Clinton W., 440 Beaumont Bldg. 8
Langan, William J., Jr., 5803 Plymouth Ave. 12
Lange, Adolph C., 512 Wall Bldg. 8
Lanier, Earl W., 6000 W. Florissant Ave. 20
Lansche, Elmer A., 6303 Natural Bridge Ave. 20
Larimore, Joseph W., 626 Beaumont Bldg. 8
Larsen, Kenneth V., 819 University Club Bldg. 3
Larson, Paul U., 100 N. Euclid Ave. 8
Lassar, Gilbert N., 1307 Washington Ave. 3
Lattinville, Henry E., 100 N. Euclid Ave. 8
Lawrence, George H., 504 University Club Bldg. 3
Lawrence, John V., 4534 W. Pine Blvd. 8
Lawton, John T., Missouri Theatre Bldg. 3
Lawton, Lawrence M., 2801 N. Taylor Ave. 15
Lawton, Thomas P., 2739 N. Grand Blvd. 6
Leahy, John G., 950 Francis Pl. 5
LeBlanc, Leo J., 801 Beaumont Bldg. 8
Lederman, Joseph, 2400 N. Grand Blvd. 6
Lembeck, Joseph A., 601 University Club Bldg. 3
Lenobel, Milton I., 16 Granada Way 24
Lerwick, Everett R., 5342 Mardel Ave. 9
Levin, Sidney S., 440 N. Taylor Ave. 8
Levitt, Joseph, 7354 Cornell Ave. 5
Levy, Irwin, 4952 Maryland Ave. 8
Lewis, James E., Jr., 1325 S. Grand Blvd. 4
Leydig, Stanley M., 16 Hampton Village Plaza 9
Lieb, Francis X., 634 N. Grand Blvd. 3

Lieb, Otto, 3608 S. Grand Blvd. 18
Lieberman, David M., 457 N. Kingshighway Blvd. 8
Liebmann, Fritz M., 919 N. Taylor Ave. 8
Liese, Grover B., 321 Beaumont Bldg. 8
Liggett, Hiram S., 401 Beaumont Bldg. 8
Lindeman, Carl H., 4126 Shreve Ave. 15
Link, Alexander J., 212 Metropolitan Bldg. 3
Lipsitz, Ellis S., 457 N. Kingshighway Blvd. 8
Lischer, Carl E., 457 N. Kingshighway Blvd. 8
Littauer, David, 216 S. Kingshighway Blvd. 10
Little, Monroe H., 3167 Sheridan Ave. 6
Littmann, Lewis E., 8231 Clayton Rd. 17
Litzow, Louis T., Missouri Theatre Bldg. 3
Loeb, Virgil, Jr., 100 N. Euclid Ave. 8
Loeffel, Ellen S., 635 Beaumont Bldg. 8
Lohr, Curtis H., 601 S. Brentwood Blvd. 5
Londe, Sol, 201 Lister Bldg. 8
Lonergan, Warren M., 457 N. Kingshighway Blvd. 8
Lonsway, Maurice J., 8225 Clayton Rd. 17
LoPiccolo, Vincent J., 1931 Marconi Ave. 10
Lottes, James O., 16 Hampton Village Plaza 9
Lowenstein, Paul S., 18 S. Kingshighway Blvd. 8
Lucido, Joseph L., 501 Missouri Theatre Bldg. 3
Luedde, Philip S., 16 Hampton Village Plaza 9
Luh, Andrew, 505 Humboldt Bldg. 3
Luten, Drew W., 502 Beaumont Bldg. 8
Lutz, Martin H., 31 Aylesbury Dr. 24
Lyman, Edward H., 607 N. Grand Blvd. 3
Lynxwiler, Chester P., 1325 S. Grand Blvd. 4
Lyttle, Garnet C., 2407 N. Broadway 6
Lytton, William B., 29 Overhill Dr. 17
McAdam, Charles R., 525 Frisco Bldg. 1
McAfee, C. Alan, 100 N. Euclid Ave. 8
McCann, John F., 16 Hampton Village Plaza 6
McCarroll, Henry R., 3720 Washington Blvd. 8
McCarthy, Eugene F., 5070 Westminster Pl. 8
McCaughan, John M., 505 Humboldt Bldg. 3
McCloskey, R. Bruce, 745 E. Big Bend Blvd. 19
McDonald, George H., 8418 Knollwood Dr. 21
McDowell, Frank S., 100 N. Euclid 8
McElvain, Robert C., 4356 Warne Ave. 7
McFadden, James F., State Hospital 4, Farmington
McFadden, James F., Jr., 950 Francis Pl. 5
McGinnis, Byron J., 16 Hampton Village Plaza 9
McLean, Harry A., 4924 Hampton Ave. 9
McLelland, Richard I., 8515 Delmar Blvd. 24
McMahan, John H., 5400 Arsenal St. 9
McMahon, Alphonse, 816 Missouri Theatre Bldg. 3
McMahon, Bernard J., 8230 Forsyth Blvd. 24
McNamara, John J., 1390 S. Florissant Ave. 21
McNamee, Owen J., R. 6 23
McNamee, William F., 7619 Ivory Ave. 11
McSwiney, John G., 5014 Thekla Ave. 15
Maas, Hermann, 827 Metropolitan Bldg. 3
MacBryde, Cyril M., 1333 W. Adams Rd. 22
Macdonald, William C., 4161 Lindell Blvd. 8
Machek, Otakar, 1325 S. Grand Blvd. 4
Mack, Robert E., 915 N. Grand Blvd. 6
Macko, Joseph R., Missouri Theatre Bldg. 3
Macnish, James M., 4405 W. Pine Blvd. 8
Macon, William L., Jr., 7200 Manchester Ave. 17
Maher, Thomas F., 1015 Missouri Theatre Bldg. 3
Maizus, Saul H., 40 N. Kingshighway Blvd. 8
Malles, A. Conrad, 505 University Club Bldg. 3
Manion, Peter J., 3915 Brannon Ave. 9
Mannis, Ben G., 7943 Delmar Blvd. 24
Mansbacher, Kurt, 462 N. Taylor Ave. 8
Manting, George, 4903 Delmar Blvd. 8
Marston, Warren G., 607 N. Grand Blvd. 3
Martin, Charles E., 4020 W. Florissant Ave. 7
Martin, Maynard W., Texas Medical Center, Houston 25, Texas
Martin, Raymond T., 5203 Chippewa St. 9
Martin, Thomas M., 937 Missouri Theatre Bldg. 3
Mason, Roy E., Frisco Bldg. 1
Massie, Edward, 457 N. Kingshighway Blvd. 8
Masters, William H., 630 S. Kingshighway Blvd. 10
Mastin, E. Vernon, 721 Locust St. 1
Matthews, John G., 3707 Watson Rd. 9
Maughs, Sydney B., 4500 W. Pine Blvd. 8
Max, Paul F., 701 Beaumont Bldg. 8
Maze, Lawrence E., 630 S. Kingshighway Blvd. 10
Medler, Francis J., 4118 W. Florissant Ave. 15
Mehan, George T., 414 Wall Bldg. 8
Meinberg, William H., 320 Frisco Bldg. 1
Meiners, Edwin P., 6651 Enright Ave. 5
Meiners, Theodore M., 922 Newport Ave. 19
Meisenbach, A. Edward, Wall Bldg. 8
Melick, William F., 3720 Washington Blvd. 8
Mellies, Eugene G., 7518 Forest View Dr. 21
Mendonsa, Lawrence E., 616 University Club Bldg. 3
Merenda, Sam J., 45 Berry Road Park 19
Merklin, Anton L., 3507 Potomac St. 18
Mestres, Hugh M., 3209 S. Grand Blvd. 18
Metz, Charles O., 3102 S. Grand Blvd. 18
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Meyer, Herman M., 4409 W. Pine Blvd. 8
Meyer, Oscar D., 6029 S. Kingshighway Blvd. 9
Meyerhardt, Milton H., 4409 W. Pine Blvd. 8
Meyers, John B., 940 Missouri Theatre Bldg. 3
Meyers, Montague M., 1300 Grant Rd. 19
Michael, Kenneth D., 950 Francis Pl. 5
Michael, Vernon E., Arcade Bldg. 1
Michaelree, John F., Harper Bldg. 17
Middleman, Isadore C., 462 N. Taylor Ave. 8
Mier, Thomas M., 703 University Club Bldg. 3
Milder, Benjamin, 100 N. Euclid Ave. 8
Miller, Charles W., 408 Humboldt Bldg. 3
Miller, James E., 640 S. Kingshighway Blvd. 10
Miller, Norman C., 4960 Laclede Ave. 8
Millikin, Lester A., 2608 S. Kingshighway Blvd. 9
Mills, Warren B., 1420 Grattan St. 4
Milster, Clyde R., 411 Frisco Bldg. 1
Mistachkin, Norman L., Romany Park 24
Moeller, Carl E., 3537 S. Jefferson Ave. 18
Molholm, Hans B., Independence, Iowa
Montani, Charles, 5147 Daggett St. 10
Montgomery, Austin F., 6244 Oakland Ave. 10
Moore, Carl V., 600 S. Kingshighway Blvd. 10
Moore, Neil S., 7299 Westmoreland Dr. 5
Moore, Sherwood, 600 S. Kingshighway Blvd. 10
Morfit, John C., 7827 Walmca Tr. 5
Morrin, Kevin C., 5251 Westminster Pl. 8
Morris, Harvey E., 8005 Audrain Dr. 21
Morris, Mary E., 719 Metropolitan Bldg. 3
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Moses, Robert A., 640 S. Kingshighway Blvd. 10
Motzel, Albert J., 6238 Washington Ave. 5
Mountjoy, Grace S., 20 Southmoor Dr. 5
Mowrey, William O., 3633 Fair Ave. 15
Moyer, Carl A., 7516 Washington Ave. 5
Muckerman, Richard I. C., 433 Missouri Theatre Bldg. 3
Mudd, James L., 914 Missouri Theatre Bldg. 3
Mueller, Clarence E., 835 Missouri Theatre Bldg. 3
Mueller, Joseph A., 3177 S. Grand Blvd. 18
Mueller, Morris A., 11 Long Meadows 24
Mueller, Robert, 977 Arcade Bldg. 1
Mueller, Robert J., 16 Hampton Village Plaza 9
Mueller, W. K., 1160 S. McKnight Rd. 17
Muether, Raymond O., 4161 Lindell Blvd. 8
Mulligan, Leo V., 916 Missouri Theatre Bldg. 3
Munsch, Augustin P., 306 Humboldt Bldg. 3
Munsch, Girard A., 35 N. Central Ave. 5
Murphy, George E., 4940 Audubon Ave. 10
Murphy, James P., 634 N. Grand Blvd. 3
Murphy, John P., 6229 Washington Blvd. 5
Murphy, Paul, 603 Metropolitan Bldg. 3
Murray, Louis F., 605 Russell Blvd. 4
Mutshnick, Clara P., 3103 Shenandoah Ave. 4
Naryka, Joseph J., 3720 Washington Blvd. 8
Nash, Francis P., 100 N. Euclid Ave. 8
Nash, Helen E., 4065 Easton Ave. 13
Nash, Homer E., Jr., 3136 Easton Ave. 6
Nathan, Lester J., 4652 Maryland Ave. 8
Natoli, Cornelius A., 600 S. Kingshighway Blvd. 10
Neilson, Arthur W., 539 N. Grand Blvd. 3
Neilson, Arthur W., Jr., 5535 Delmar Blvd. 12
Neilson, Charles H., 306 Humboldt Bldg. 3
Nemec, Stanley S., 205 Wall Bldg. 8
Nester, Charles A., 3921 Federer Pl. 16
Neun, William F., 5682 Delor St. 9
Newman, Harold G., 3720 Washington Ave. 8
Newman, Percy, 3539 Hartford St. 18
Nichols, Charles E., 2 N. Euclid Ave. 8
Nickel, James F., 4952 Maryland Ave. 8
Nicolai, Charles H., 20 Terrace Gardens 22
Niedermeyer, George J., 3923 Watson Rd. 9
Niesen, Frank J., 4209 S. Kingshighway Blvd. 9
Noah, Joseph W., 100 N. Euclid Ave. 8
Nofles, James W., 4108 Easton Ave. 13
Nolan, Charles J., 736 University Club Bldg. 3
Northup, Glenn R., 740 S. 4th St. 2
Norton, William H., 729 Missouri Theatre Bldg. 3
Nye, Robert S., 3201 Arsenal St. 18
Obermeyer, Charles G., 4401 Hampton Ave 9
O'Brien, Edward C., 915 N. Grand Blvd. 6
O'Brien, Robert M., 950 Francis Pl. 5
Odell, Richard T., 816 Beaumont Bldg. 8
O'Donnell, Joseph V., 634 N. Grand Blvd. 3
O'Dowd, James A., 2919 S. Kingshighway Blvd. 9
Oetter, Donald L., 730 Hodiamont Ave. 12
Ogura, Joseph H., 1038 Winwood Dr. 24
Ohmoto, Masao, 607 N. Grand Blvd. 3
O'Leary, James L., 660 S. Kingshighway Blvd. 10
Olmsted, William H., 1011 Beaumont Bldg. 8
O'Malley, Eugene J., 614 Missouri Theatre Bldg. 3
O'Neal, Lawrence W., 100 N. Euclid Ave. 8
O'Neill, John B., 1222 Missouri Theatre Bldg. 3
Oppenheimer, Henry E., 35 N. Central Ave. 5
O'Reilly, Daniel E., 950 Francis Pl. 5
Orenstein, Joseph M., 108 Lister Bldg. 8
Orgel, M. Norman, 100 N. Euclid Ave. 8
O'Sullivan, George A., 421 Schirmer St. 11
Owen, James W., Jr., 4952 Maryland Ave. 8
Owen, Robert F., 4910 W. Pine Blvd. 8
Paine, Robert, 901 Beaumont Bldg. 8
Palazzo, Frank A., 4161 Lindell Blvd. 8
Paletta, Francis X., 940 Missouri Theatre Bldg. 3
Parashak, Paul M., 5203 Chippewa St. 9
Parato, John M., 4224 N. Grand Blvd. 7
Pareira, Morton D., 511 W. Polo Dr. 5
Parker, Thomas W., 7298 Greenway Dr. 5
Parker, William, 807 Carleton Bldg. 1
Parsons, Ernest H., 457 N. Kingshighway Blvd. 8
Passanante, Bartholomew M., 15 King-Lynn St. 24
Patton, Leslie E., 701 Beaumont Bldg. 8
Payne, Meredith J., 7314 Westmoreland Ave. 5

Peden, Burnet W., 35 N. Central Ave. 5
Peden, Joseph C., 1015 Missouri Theatre Bldg. 3
Peden, Joseph C., Jr., 100 N. Euclid Ave. 8
Peeler, James O., 2505 N. Florissant Ave. 6
Pelz, Mort D., 304 University Club Bldg. 3
Penney, David L., 317 Wall Bldg. 8
Pennington, F. E., 27 Log Cabin Dr. 17
Pernoud, Flavius G., Jr., 841 Audubon Dr. 5
Pernoud, Michael F., 51 Frontenac Dr. 24
Peugnet, Hubert B., 718 University Club Bldg. 3
Pfaff, John, Jr., 1402 S. Grand Blvd. 4
Pfeifer, Oliver C., 6567 Murdoch Ave. 9
Piccione, Leonard M., 18 S. Kingshighway Blvd. 8
Pickerell, Claude D., 329 N. Central Ave 5
Piper, August T., 4503 Easton Ave. 13
Plag, Albert F., 3150 Morganford Rd. 16
Plesons, John D., 3632 Bates St. 16
Ploehn, Emma, 2728 Geyer Ave. 4
Plumpe, W. Tupper, 3933 S. Grand Blvd. 11
Pollack, Maxwell A., 311 Metropolitan Bldg. 3
Popovich, Paul J., 6102 Oakland Ave. 10
Porporis, Arthur A., 5535 Delmar Blvd. 10
Portuondo, Bonaventura C., 3532 Flora Ct. 4
Post, M. Hayward, 100 N. Euclid Ave. 8
Potashnick, Robert, 930 Beaumont Bldg. 8
Pote, Thomas B., 4925 Park View Pl. 10
Potter, Allen B., 120 Jefferson Dr., Bowling Green
Potter, Reese H., 100 N. Euclid Ave. 8
Powell, Carl A., 3643 Washington Ave. 8
Powell, Earl A., 517 Beaumont Bldg. 8
Powell, Rudolph V., 818 S. Hanley Rd. 5
Powers, Pierce W., 544 Missouri Theatre Bldg. 3
Powers, William E., 510 S. Kingshighway Blvd. 8
Pranger, Sylvester H., 4952 Maryland Ave. 8
Presnell, Cleitus A., 630 Missouri Theatre Bldg. 3
Press, Maurice J., 7508 York Dr. 5
Price, Kenneth C., 4952 Maryland Ave. 8
Probstein, Jacob, 108 Lister Bldg. 8
Proetz, Arthur W., 1010 Beaumont Bldg. 8
Pruett, Burchard S., 3920 Fillmore Ave. 16
Pruett, Hubert S., 7449 W. Florissant Ave. 20
Puckett, Cordelia A., 69 Crestwood Dr. 5
Purcell, Harry K., 4660 Maryland Ave. 8
Pyne, Herbert S., 2752 Cherokee St. 18
Rader, George B., 457 N. Kingshighway Blvd. 8
Raemdonck, Alphonse J., 4390 W. Pine Blvd. 8
Rainey, Robert, 4905 Lindell Blvd. 8
Ramos, Raoul L., U.S.V.A. Hospital, Poplar Bluff
Ready, James H., R. 2, Shackleford Rd., Florissant
Reh, Edward P., 4500 Olive St. 8
Reich, Harry A., 6230 Devonshire Ave. 9
Reichert, M. Cecelia, 5209 Nottingham Ave. 9
Reid, William F., 611 Chamberlayne Ave., Richmond, Va.
Reilly, Leo J., 730 Hodiamont Ave. 12
Reineck, John A., 2301 S. Kingshighway Blvd. 10
Reis, Carl J., 18 S. Kingshighway Blvd. 8
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Reuter, Louis A., 2625 N. 9th St. 6
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Richman, Elmer, 8230 Forsyth Blvd. 24
Ries, Douglas A., 635 Missouri Theatre Bldg. 3
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Riggio, Salvatore N., 100 N. Euclid Ave. 8
Riley, John J., 737 Missouri Theatre Bldg. 3
Riley, Ralph D., 1134 Missouri Theatre Bldg. 3
Riley, William H., 4660 Maryland Ave. 8
Ringo, Henry J., 840 Missouri Theatre Bldg. 3
Riordan, Lawrence M., Lister Bldg. 8
Ritchie, Frances R., 5233 Waterman Ave. 8
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Robertson, George D., 600 S. Kingshighway Blvd. 10
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Robins, Eli, 600 S. Kingshighway Blvd. 10
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Romney, Douglas, Address Unknown
Rose, Dalton K., 316 Beaumont Bldg. 8
Rosen, Charles S., 412 Humboldt Bldg. 3
Rosenbaum, Harry D., 840 Beaumont Bldg. 8
Rosenfeld, Henry, 3903 Olive St. 8
Roth, John J., 835 Missouri Theatre Bldg. 3
Rothman, David, 4652 Maryland Ave. 8
Rothweiler, Robert J., 4161 Lindell Blvd. 8
Rotter, Julius C., 2603 Cherokee St. 18
Roulhac, George E., 530 Beaumont Bldg. 8
Roy, Joseph A., 912 Beaumont Bldg. 8
Royce, Robert K., 411 Beaumont Bldg. 8
Royston, Grandison D., R. 3, Hope, Ark.
Ruddell, George W., 1259 N. Kingshighway Blvd. 13
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Rumer, Donald G., 915 N. Grand Blvd. 6
Rund, Emmett H., 5417 S. Grand Blvd. 11
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Sachar, Leo A., 457 N. Kingshighway Blvd. 8
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St. John, Thomas C., Metropolitan Bldg. 3
Sale, Llewellyn, 100 N. Euclid Ave. 8
Sale, Llewellyn, Jr., 100 N. Euclid Ave. 8
Salmon, William D., Jr., 4960 Audubon Ave. 10
Sammons, Harry C., 414 W. Washington Ave. 22
Sanders, Robert D., 1502 Cass Ave. 6
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Sciortino, John S., 801 Beaumont Bldg. 8
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Shahan, Philip T., 100 N. Euclid Ave. 8
Shahan, William E., 100 N. Euclid Ave. 8
Shaner, John F., 912 Beaumont Bldg. 8
Shapleigh, John B., 28 Deerfield Rd. 17
Sharp, Austin R., 1465 S. Grand Blvd. 4
Sheets, John S., 2500 S. Kingshighway Blvd. 10
Sheets, Martin E., 4329 Manchester Ave. 10
Shen, Jerome T. Y., 7132 Kingsbury Ave. 5
Sherard, Julius C., 2702 Franklin Ave. 3
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Sherry, Sol, 216 S. Kingshighway Blvd. 10
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Siemers, George E., 100 N. Euclid Ave. 8
Siesener, Herbert H., 6000 W. Florissant Ave. 20
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Signorelli, Andrew J., 2801 N. Taylor Ave. 15
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Simon, David L., 5535 Cabanne Ave. 12
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Fingert, H. H., 12 Hortense Pl. 8
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Goldman, Hyman J., 457 N. Kingshighway Blvd. 8
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Hale, Tyre H., 205 Roosevelt Hotel Bldg. 8
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The Cape Girardeau Issue

J. H. Trolinger, M.D.

Fortune beneficently endowed Missouri with three great medical centers. Their contributions to medical literature and progress are common knowledge. It is my definite impression that all too rarely does the average Missouri physician pause to consider and properly appreciate the truly tremendous assets and incalculably rich professional resources offered by these medical schools. Not only have they most admirably fulfilled their basic functions of training and sustaining many generations of Missouri physicians but they have also gained international repute, including Nobel prizes, for research activity. The contributions of their faculty and staff to this and other medical journals have been of immeasurable value.

With this obviously indicated and richly deserved accolade the editorial staff of Missouri Medicine is happy to present this issue which is comprised entirely of material stemming from the clinical experience, reflection and research of a group of Missouri physicians practicing in an atmosphere of mutual respect and consideration in a comparatively remote, rural and self-reliant sector of "out-state Missouri."

The papers are not world-shaking in scope or consequence but they do reflect the efforts of a group of doctors practicing independently of all the resources of a major medical center, and are considered indicative of the valuable contributions to medical literature possible to all private physicians, however isolated they may be. Indeed, such practical contributions reflecting the type of medical care available to the citizens of out-state Missouri should be published more often in journals such as this one. It grows increasingly difficult for the busy practitioner to select the wheat from the constantly growing mountain of bibliographic chaff of current medical literature. Today one finds altogether too many originally clinical publications cluttered with a welter of articles on cardiac surgery, on prohibitively complex, or expensive diagnostic procedures, weird metabolic syndromes and other clinical rarities which are seldom encountered in daily practice and which should remain properly within the province of the medical center with its relatively inexhaustible facilities of equipment, personnel and time. Just as one wearies of journals too redundantly replete with case histories of the rare and esoteric, so is one increasingly bored with those many papers on purely hypothetical topics leading to tentative or negative conclusions drawn from admittedly inadequate material, and ending always in "results of this study indicate the need for more consideration, observation and study of the particular clinical problem." The increasing frequency with which this clinical cliché is being encountered contributes almost as much to the reading practitioner's frustration as does the voluminous literary product of the bibliography-collector and the efforts of those writing solely for academic promotion.

With these considerations in mind (and many others better left unsaid) this issue of Missouri Medicine is accordingly dedicated to the hundreds of practicing Missouri physicians who are usually indicated as being non-urban, if not entirely rural. We would especially compliment those physicians who, while so handsomely discharging their primary professional obligations to their individual patients, still find the time and enthusiasm for the scholarly aspects of practice and to record the results of their clinical observation and study for the benefit of their professional brethren.

In congratulating this issue's contributors from Cape Girardeau the editorial board of Missouri Medicine again invites similar contributions from its readers in other sections of the state. The oft-quoted observation of Charles H. Mayo which follows remains quite apropos: "Medicine is about as big or as little in any community, large or small, as its physicians choose to make it."

Editorial Note: Just as Dr. Trolinger has complimented this issue's scientific contributors on behalf of the editorial board, congratulations also should go to him.

At a board meeting last winter, he had the idea for this issue and has been working on it ever since. His words above come from his own experiences, living and practicing as he does in Jackson just a few miles from Cape Girardeau.

Thanks also should go to Dr. J. H. Keim of Cape Girardeau, who edits the *Cape County Journal.* Somehow he found time to help ready these articles for this issue.

Actually, this could be the first of a series of sectional issues!

If just a few of the many articles now being published by Missouri physicians from each area were aimed at one issue, it would be easy. There are, of course, many advantages to publishing in a local or state journal. Fellow physicians can see what is going on in their own state and who is doing it.

The Scientific and Postgraduate Work Committee planning MSMA's next annual session also is fully aware of this talent. The Committee, of which Dr. Keim is a member, is asking Missouri physicians to submit papers they might present next spring. (See President's Page, page 892, for details.) Dr. John A. Growdon, Kansas City, heads the Committee.

Curiosa et Trivia

William B. McCunniff, M.D.

Because ". . . it is doubtful whether there be any branch of medical knowledge for the acquisition of which less facility has hitherto been afforded . . . ," St. Mark's Hospital was founded in London in 1835. It was the first hospital devoted exclusively to diseases of the rectum and colon.

What a paragon of public health—the incidence of trichinosis in American hogs is about 1,500 times that in German swine!

The ancient Indian holy book, "Veindad" stated that ". . . a doctor may heal a priest in return for a benediction . . . a county governor for four foxes . . . a large city mayor for a bull . . . a governor's wife for a female camel . . . a mayor's wife for an ass. . . ."

Capsule Clinics

I. A. Wien, M.D.

- Primary aldosteronism is basically caused by an adrenocortical tumor, resulting in excessive secretion of aldosterone. This causes an increased loss of potassium and retention of sodium, Milne, M.D., *et al.:* Quart. J. Med. 26 (July) 1957.

- Less than three grams of potassium are dissolved in the normal 14 liters of extra-cellular water, while about 160 grams are concentrated in the 35 liters of intracellular water. Young, Q. D.: Proc. Inst. Med. 22 (March 15) 1958.

- Periarteritis nodosa is usually a benign disease, death when it does occur in about 12.5 per cent is due to: multiple cerebral thrombosis, and disseminated arteritis, Allen, E. V., *et al.:* Peripheral Vascular Disease, 2nd Ed., W. B. Saunders Co., Philadelphia, 1955.

- Sterility may be defined as the failure of conception to occur after two or more years of frequent and normal coitus. The study of it should include the barren couple. Greenblatt, R. B.: Office Endocrinology, 4th Ed., Charles C Thomas, Springfield, Ill., 1952.

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WASHINGTON

Medicine's battle against the Forand bill (H.R. 9467) continues in full force as this publication goes to press. While the bill's final outcome still is undetermined, it appears virtually certain that medicine has won its fight this legislative year.

Congress, of course, is preparing to wind up the session and go home for this month's important primaries. Any bills left on the legislative docket automatically die, and would have to be reintroduced next session which starts in January.

Success this year by the physicians merely will mean renewed efforts next year by organized labor and other backers of the proposed liberalizing legislation.

The lateness of the hour in which hearings were scheduled on the Forand and similar bills might mean the hearings merely were designed as sounding boards. If so, Congress certainly got a loud report from medicine.

Assuming defeat of the Forand-type legislation, organized medicine has gained a few months breather to come up with some answers to the problem of medical care for the older citizens. The reception given the formation of the Joint Council for the Health Care of the Aged by the news media indicates that it could well be the right vehicle.

The Joint Council formed by the AMA, American Hospital Association, American Dental Association and American Association of Nursing Homes already has proved its worth in helping to direct the campaign explaining the shortcomings and fallacies in the Forand bill.

This was a grass roots campaign, with state and county medical societies contacting their congressmen. In most cases, it was conducted through society officers and/or special legislative chairmen named for the occasion.

Missouri was one of the important states in this campaign, having two members on the Key House Ways and Means Committee that handles legislation of this type. They both were contacted as well as every other member of the Missouri delegation.

The MSMA's statement of opposition to the Forand bill presented to the Ways and Means Committee stressed the philosophical aspect as well as the socialized medicine side of the bill. It pointed out that much of the trouble stemmed from the simple fact people are living longer and mere legislation can not solve the problem.

The statement was put into the committee's records by the two Missouri Representatives, Thomas B. Curtis and Frank M. Karsten, both from the St. Louis area. Mr. Curtis, long an acknowledged foe of such legislation, is believed to have been one o medicine's most valuable friends in connectio with the hearings, according to the AMA.

The voluntary health insurance firms also hav proved a strong ally in the fight against the measure seeking to provide free hospital and surgica care for the oldsters. The commercial firms hav joined the Blue plans in studying ways to expan and make their coverages more attractive an easier for the oldsters to obtain.

Another strong supporter has been the America Farm Bureau Federation which numbers th Missouri Farm Bureau Federation among its constituents. In its statement to the Ways and Mean members, the Farm Bureau stated it had "lon opposed programs which may lead to socialize medicine."

"The proposal to provide for health care of th aged, whether retired or not, and for survivor entitled to benefits is a long step in this direction."

The Farm Bureau's statement also explaine that it viewed health problems as "essentially loca in nature, individual in responsibility." The Far Bureau also has been a consistent leader in th fight for greater freedom for the farmer from government controls.

The final money figure for Medicare also is undecided, and probably will remain so until th final legislative curtain falls. Despite the gentlemen's agreement that the fund slash made by th House Appropriation Committee would be restored, opposition continues from many of th legislators.

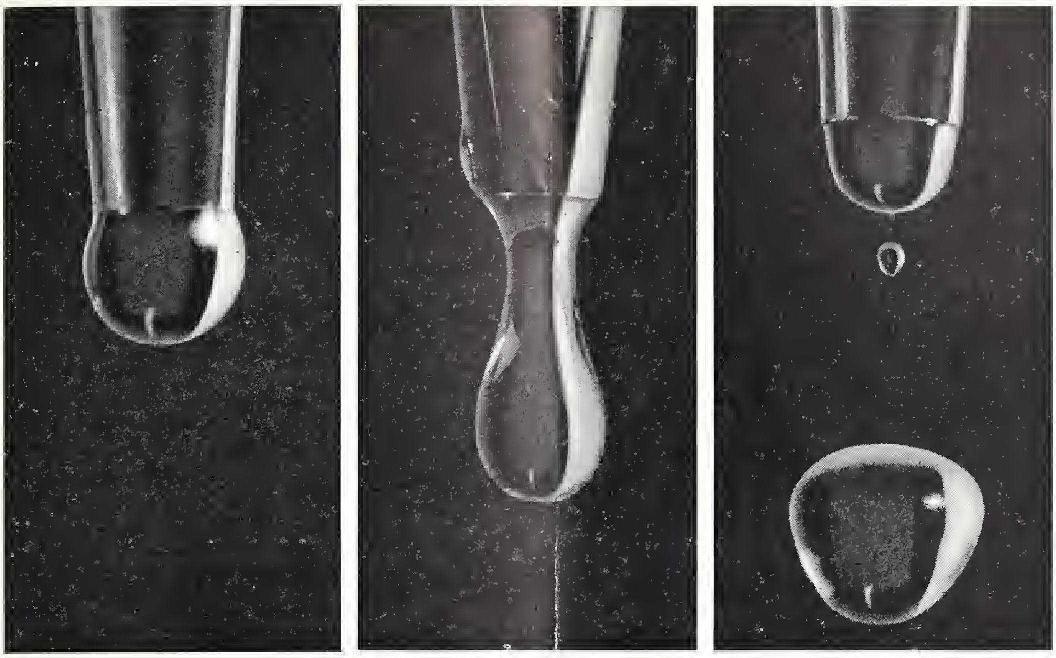
The reduced budget figure would virtually eliminate free choice of physicians and hospitals fo military dependents. The proposed 60-million-dollar ceiling would require most dependents on o near posts or in government-subsidized militar housing to use military medical facilities exclusively. This, of course, would end free choice which i the basis on which the program was accepted b the physicians.

The 60 million dollars also would have to tak care of the 18-million-dollar carry-over from th fiscal period just ended. This would leave 42 million, less than half of the estimated 90 million required to fully finance the program as it was designed.

The final budget figure which will emerge fro arbitration between the two houses of Congres has become a statistical battle between some Defense Department spokesmen and the Budge Bureau.

The Budget people place the cost per day for patient in a military hospital at $43.67. But th Navy states it is just $16.24 a day in its facilities The Navy claims this figure includes the pay an allowances for all its military personnel. It con

(Continued on page 846)



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SEARLE

Across Missouri

Gov. James T. Blair readies himself to move into his renovated Executive Mansion as summer draws on. It was just about a year and a half ago that he touched off a furor by announcing he wouldn't live in that "rat-infested firetrap."

Since then about $50,000 has been spent on a fast face lifting on the 86-year-old structure in Jefferson City. The *St. Louis Globe-Democrat* cautions that modernization work shouldn't destroy the "19th century flavor" of the mansion.

It seems there is little danger of that because the money went primarily for leaky plumbing, paint for peeling walls and an elevator. The elevator will save the state's chief executive the 140 steps from the basement garage to the second floor. But, as the *St. Louis Post-Dispatch* reports, the floors still slope and it still would cost thousands to reconstruct the place as was done with the White House.

Another state official, meanwhile, prepares for another type of housing battle.

Dr. Henry M. Hardwicke, acting director of the health division, has served notice on Missouri nursing home operators to comply with the state law or suffer the consequences. He has indicated that time extensions still might be granted if the operators show good intent.

As of several weeks ago about 160 homes had been licensed, compared with the 750 homes in operation before the 1957 act went into effect after the disastrous Warrenton nursing home fire that killed 72 aged. So far, more than 250 of these homes have been closed with more slated for the list.

Dr. Hardwicke said he believed Missouri has exercised "extreme patience" in the matter and the nursing homes not complying soon will be cited. He explained that in almost all cases where homes were closed either voluntarily or otherwise, the patients were moved to other homes with virtually no suffering or discomfort on their part.

The Kansas City Star reports that Missouri may be on the way to becoming one of the "top iron ore producing states."

A recent editorial states that evaluations of the state's iron ore possibilities indicates richer deposits than those of the Northern Minnesota area (although not as extensive).

The deposits are principally in the south central and east central sections. Shaft operations now are being built in the Sullivan, Mo., area in a 35-million-dollar project by two major national firms. The ore there has been defined as the richest iron-yielding type and the potential production has been estimated at 2 million tons annually.

An output of this caliber, together with other activity in Shannon County and nearby Ozark areas, would rank that state among the nation's top producers of iron ore. It is needless to point out what this could mean to the economy of that area, and the state in general.

State and Kansas City officials have been wrestling with the problem of how to transfer the Kansas City Psychiatric Receiving Center to the state. The mayor and city councilmen have been under heated attack for their apparent eagerness for the transfer. Legislation enacted by the Missouri Legislature last year called for the shift.

Opponents of the transfer claim it would mean the end of the type of psychiatric treatment now given in the Center. They are afraid that instead it would, as *The Kansas City Star* editorially comments, become another asylum. *The Star* said:

"The objective is a plan that would make the Psychiatric Receiving Center a training hospital for psychiatrists and technical people to staff the state mental hospital system. Such a hospital would be tremendously important to the state's new forward-looking program."

Residents of Kansas City have a bond money investment of about $450,000 in the hospital. The state would acquire the property for a token payment of $1, but it also would take over the upkeep that has been running in the neighborhood of $200,000 or more a year.

Almost in the same breath, The *St. Louis Post-Dispatch* quotes one of the state's leading senators that the No. 1 problem in Missouri's mental health program is getting trained professional personnel.

The State Senator, Floyd Gibson of Independence probably will be a key figure when the final decision is made on just how the Center is to be operated.

A new state law requires drivers to halt for school busses loading or unloading in incorporated areas as well as unincorporated area. It applies to drivers coming from both directions. The previous law applied only in the unincorporated areas.

A drive to get names for an initiative petition to boost the old-age assistance payment reportedly

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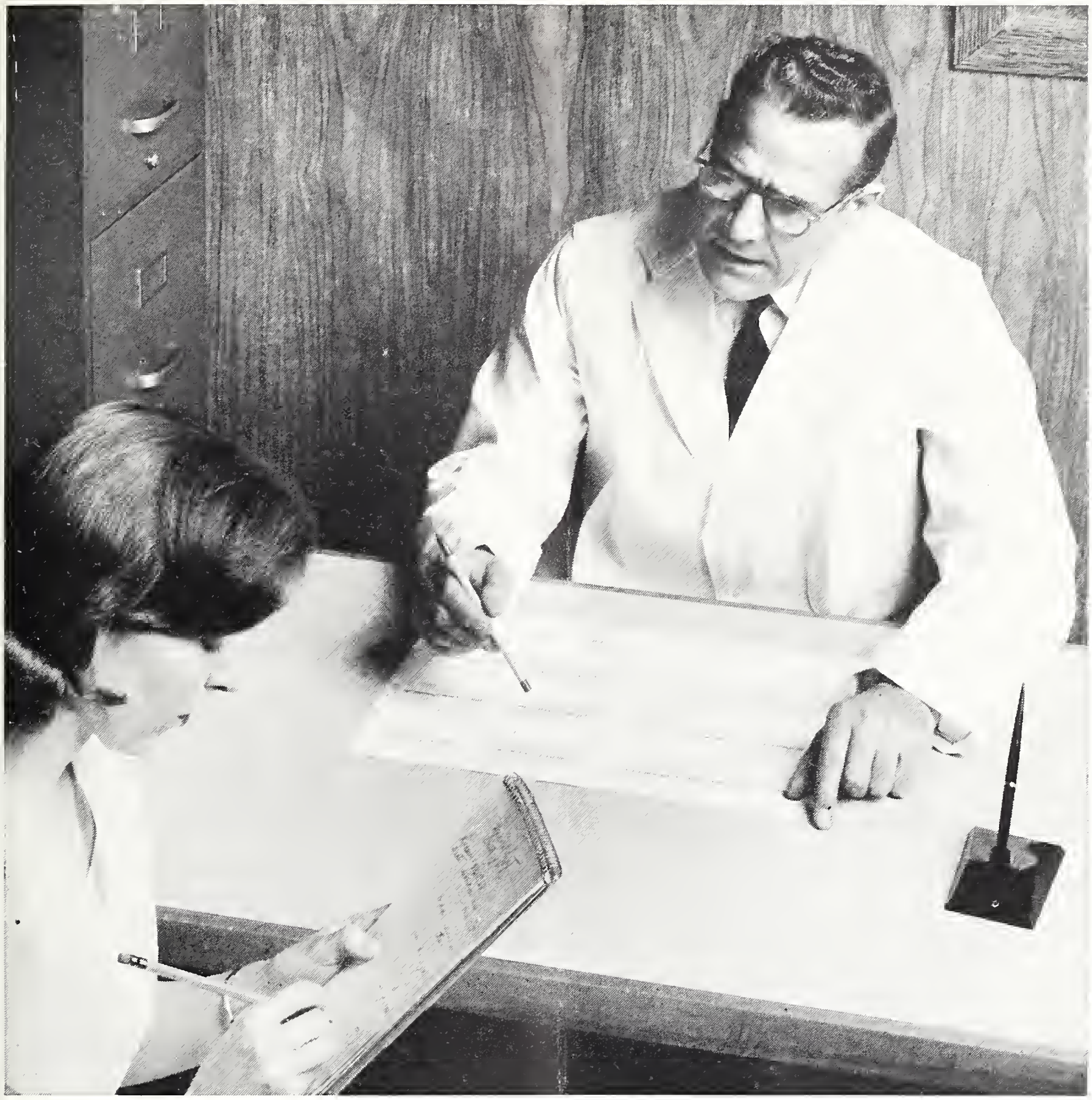

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The Chicago meeting of the American Medical Association, June 10-14, was one of the most enthusiastic sessions the Association has ever held. From the standpoint of attendance alone it produced a surprise for every one, the registration of 5,553 far exceeding the estimate of the most optimistic prophet; it was the largest registration since the previous session at Chicago in 1908. The number registered for Missouri was 180. On the stage were seated, in addition to the officers and delegates of the Association, Surgeon-General Gorgas of the Army, Surgeon-General Braisted of the Navy, and the foreign guests, Sir Charles Mackenzie and Sir Arbuthnot Lane, representing England; Major Edouard Rist and M. Justin Godart from France; Captain Rene Sand of Belgium, and Colonel Herbert Bruce from Canada. President Mayo delivered a short address, introducing the president-elect, Dr. Arthur Dean Bevan, Chicago. The election of officers for the ensuing year resulted as follows: President-elect, Alexander Lambert, New York; first vice president, William N. Wishard, Indianapolis; second vice president E. Starr Judd, Rochester, Minn.; third vice-president, C. W. Richardson, Washington, D. C.; fourth vice president, John M. Baldy, Philadelphia; secretary, Alexander R. Craig, Chicago; treasurer, William Allen Pusey, Chicago.

Dr. B. M. Colby, assistant physician at State Hospital No. 2, St. Joseph, has accepted the position of superintendent of the General Hospital at Kansas City. Dr. T. R. Frazer of Commerce has been appointed assistant physician at State Hospital No. 4, Farmington, in place of Dr. F. L. Long, who has accepted a commission in the Medical Reserve Corps of the Army. Dr. Paul E. Coil, Mexico, has purchased a residence in that city which will be remodeled and adapted to hospital uses. The plans call for accommodations for 14 patients with the equipment modern throughout. The hospital will be opened about July 15.

The Missouri Commission for the Blind, St. Louis, recently prosecuted successfully through the St. Louis Department of Health a local midwife for her failure to report a case of ophthalmia neonatorum. Fortunately only one eye of the baby will be permanently blind, the other having been saved by skilled medical attention obtained through the Commission. The midwife was fined $25. This is the second successful prosecution of failure to report and properly care for a case of opthalmia neonatorum, undertaken by the Commission.

The House of Delegates ordered that a page be set aside in the minutes, and that there be inscribed thereon the names of our members who have given their lives in the war with Germany. At this time the following members have paid the supreme sacrifice: Lt. William T. Fitzsimmins, Kansas City, killed September 4, 1917, when a German airplane dropped bombs on the Base Hospital of the Harvard Unit at Rouen, France, in which he was serving; Lt. Floyd S. Bates, M.R.C., Adrian, killed by lightning at Fort Riley, August 6, 1917; Lt. Frank V. Frazier, M.R.C., Altamount, died in a military hospital in France from bomb wounds, April 3, 1918; Lt. Charles R. Long, M.R.C., Sedalia, killed by a shell explosion while returning from duty in the front line in France, April 26, 1918.

TWENTY-FIVE YEARS AGO

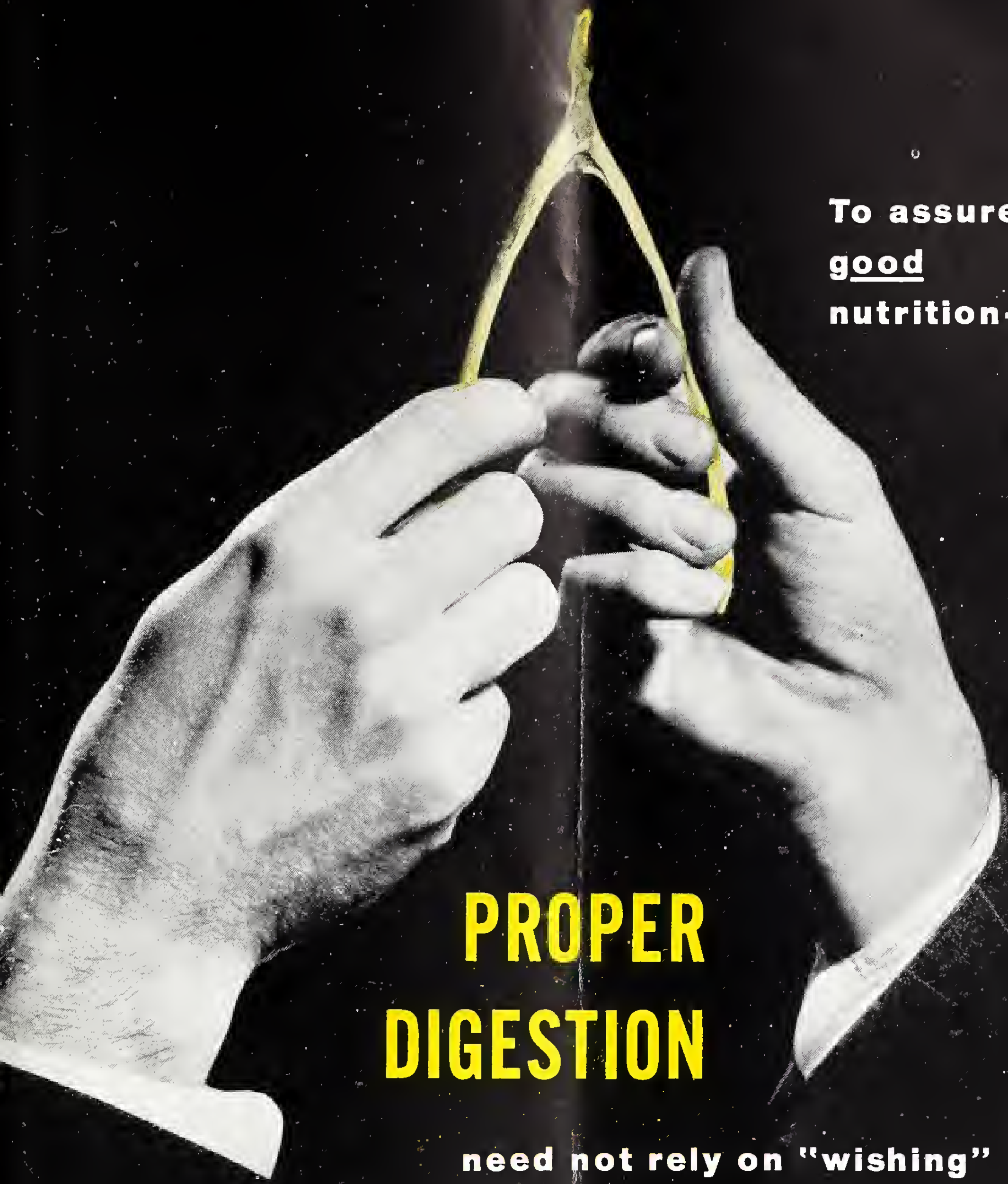
Dr. C. T. Ryland, Lexington, was chosen by the House of Delegates of the Missouri State Medical Association at the Kansas City Session to serve as President-Elect during 1933-1934 and as President during 1934-1935. Dr. Ryland is not only a native Missourian but is a native of Lexington. He was born in Lexington on April 20, 1874, and attended the public schools there and the Wentworth Military Academy. He received his degree in medicine from the Beaumont Hospital Medical College, St. Louis, in 1897 and served as intern in St. Mary's Infirmary under Dr. W. A. McCandless the following year. In 1898 Dr. Ryland began his practice of medicine in Lexington and has remained in practice there.

The Catholic Hospital Association of the United States and Canada comprising eight hundred thirteen institutions held its eighteenth annual meeting in St. Louis, June 12 to 16. The sessions were held at St. Louis University and the Rev. Alphonse M. Schwitalla, S.J., president of the association, presided.

Dr. John R. Caulk, St. Louis, was elected president of the American Association of Genito-Urinary Surgeons at the annual meeting of the association which was held in Washington, D. C., May 8 to 10.

Dr. Henry Gettys, St. Louis began his duties as medical director of the St. Louis police department on June 15. Four department surgeons were

(Continued on page 846)



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As I See It

A man said "Behold the turtle, he makes progress only when his neck is out." We, the officers, both national and state, and the Auxiliary membership must stick out our necks and move together to show accomplishments in the many lines of activity before us.

As I see it, to effectively carry out the ideals of the medical Auxiliary, we must read all the literature that comes our way. We must be interested members. We are together very seldom so we must all be reading alike so that we will be thinking alike, and able to work as a group. Our textbook is the *National Bulletin*. It will help you greatly to do any task you undertake Auxiliary-wise. With officers, state or local, it is a necessity for easy work and direction. So please order it today.

If you are like me, you find you would like to close your mind to unpleasant things. And I would like to shut out the unpleasant thought of socialized medicine in whatever form I find it. I plead with you to be alert and informed concerning the legislation at this time; particularly the Forand Bill. From the National Auxiliary I receive this thinking—that as Auxiliary members we must keep those in our homes alerted and we must be prepared to act in unison on a moment's notice with our husbands when it is necessary. We should be informing key lay leaders of other organizations of the fallacy of this kind of legislation. We are to cooperate with the joint council to improve the Care of the Aged locally. You should be studying your local community situation to see what can be done to improve the health care of the aged.

We are trying to gain time to get our own people, physicians and Auxiliary members, informed and equipped to fight a nationwide legislative battle; we are trying to gain time to inform our friends and get their cooperation and, third, to develop a positive program for the health care of the aged. We are not to conduct a big letter writing campaign, nor a speaking program, but to read and keep abreast of the times with the things happening and say the right thing, at the right time to thinking people.

No one could take up this task with more "butterflies" than I for at this time this is the latest information for us. By the time you read this, the picture and need may be different. Just in last night's paper I read that all Social Security benefit increases were under consideration at this very minute.

The A.M.A. is not quietly standing by as one might think. For many months they have been actively working behind the scenes. They have a special group called the Task Force who are working with other prominent people and send this information in the *National Bulletin*: "The man the AFL-CIO unions picked to maneuver their legislation through Congress is Aime J. Forand, Rhode Island Democrat. The vehicle they chose is an amendment to our already overburdened Social Security program. . . . You may ask why there is such sudden concern over the Forand Bill when similar legislation has been introduced in Congress since 1952. The answer is simple—the AFL-CIO has stated that one of its main goals this year is to push through Congress a government-regulated hospital and surgical plan for the aged under the Social Security Act. We know that Labor is not just paying lip-service to this bill . . . it is diligently working to get it passed."

Perhaps I should be writing much more about legislation. For instance in the May *Bulletin* are listed twelve terrifyingly important objections to this bill which you should know for informed thinking, and also a satisfying discussion of our own A.M.A.'s activity on this thing. This is just the first inning in a long ball game for there are several bills just as bad and some worse following right behind it. We must get in gear again if we are to leave a world as good and as free as the one into which we were born. We owe it to the future to do more than sit with our hands in our lap while this evil snowballs into socialization upon the generation following us. Work awhile and play awhile but when you work do something effective—something constructive.

HEADS MSMA CIVIL DEFENSE GROUP

Dr. Carl D. Siegel, Sedalia, is the new chairman of the Civil Defense Committee of the Missouri State Medical Association. He takes over as the nation's disaster planning set up undergoes a major overhauling.

Dr. Siegel, president of the Pettis County Medical Society, already was serving on the committee. He replaces Dr. William C. Allen of Glasgow who remains on the committee.

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Washington

(Continued from page 830)

trasts its figure with the sum of $50.85 which is where it places the costs per day in civilian hospitals.

The proposed cutback in Medicare funds also required a fast co-ordinated effort from state and county medical societies to put their views before the legislators.

Another still undecided issue is the status of Veterans Administration hospital bedspace. At its recent annual session in San Francisco, the AMA adopted an MSMA resolution calling on Congress to limit VA beds to those for service-connected disabilities.

Much of the present discussion in Washington, however, centers around an effort of the Budget Bureau to cut 5,000 beds from the VA's capacity.

This is just part of the problem that involves the broad field of veteran entitlement. There also has been some mention of a statutory ceiling on the number of beds, one figure being mentioned is 125,000. In this connection, the VA estimates that by 1986 service-connected cases will fall off to around 23,600, as against the 1957 level of 39,000. During the same period, nonservice-connected cases in all hospitals are expected to rise from 150,000 to 300,000.

Sen. Lister Hill (D., Ala.) has proposed that the United States initiate a dynamic program of international medical research and make it an instrument of foreign policy. He urged:

1. Cooperative international support of research directed against the major diseases.
2. Exchange of research workers and clinicians "so that all countries of the world might obtain the benefits of the newest developments."
3. Distribution of drugs, medical equipment and rehabilitation appliances to all parts of the world.
4. Establishment of demonstration projects in all areas of the world.
5. Organization of an international clearinghouse on the latest developments in medical research, including translation services.

Senator Hill spoke at a luncheon honoring Dr. Leroy E. Burney, surgeon general of the Public Health Service, on his election to the presidency of the World Health Assembly. The assembly is the policy making body of the health organization, which operates as a subordinate of the United Nations.

At the same event, Dr. Gunnar Gundersen, new president of the AMA, said American doctors recognize that international health is a responsibility of all.

Cigarette smokers received another body blow from a new statistical study released by the Public Health Service.

The study places the death rate among persons who regularly smoke cigarettes alone at 58 per cent greater than that of nonsmokers.

Those who used tobacco in any form—not just cigarettes—are shown to have a death rate 32 per cent greater than for persons who have never smoked.

The report was prepared for the National Institute of Health, a part of the health service. It covered 7,382 deaths. Of those who died 6,203 were listed as smokers and 1,179 non-smokers. The 2½-year study summarized death rates among 198,926 holders of United States government life insurance policies. These persons served in the Armed Forces between 1917 and 1940. They were from 30 to 90 years old, with the majority between 50 and 70. More than 99½ per cent of the persons were men.

The Tobacco Industry Research Committee immediately criticized the study for dealing only with tobacco smoking.

"They ignored all other factors," the committee chairman said. "They admittedly included no clinical or laboratory research in their study."

The Health Service, however, said it had "some ideas and plans" for strengthening the Government's year-long campaign to reduce "excessive" cigarette smoking.

Dr. Leroy E. Burney, head of the Health Service, said the new campaign primarily would be from the "educational standpoint." The Health Service has asked the AMA and state and local health officers to join in the educational drive.

However, latest reports from the Agriculture Department show cigarette smoking is expected to hit a record high in the U. S. this year. A big shift to filter smokes seems to have been the chief result of the drive thus far.

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named, Drs. Emmett H. Rund, Edward H. Bowdern, S. T. Vandover and Francis J. Medler.

Dr. E. Gorter, professor of pediatrics at the University of Lieden, Holland, was a guest of the St. Louis Medical Society and the St. Louis Pediatric Society at a joint meeting held at the St. Louis Medical Society building, May 23. Dr. Gorter delivered an address on "Copper and Anemia."

Dr. Max A. Goldstein, St. Louis, director of the Central Institute for the Deaf, was awarded the distinguished service medal of the American Laryngological, Rhinological and Otological Society for "outstanding work in the study and rehabilitation of the deaf child." The medal was presented June 9 during the annual meeting of the organization in Chicago.

Dr. R. C. Fagley, Fulton, was reelected presi-

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 August, 1958 Number 8

Palliative Radiation Therapy

Use in the Advanced Cancer Patient

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Regardless of enthusiasm to obtain cancer cures, unfortunately, a fair to large majority of the patients seen are in a sufficiently advanced stage that prolongation of a useful and enjoyable life is an equally noble aim. The purpose of this paper is to summarize, to some degree, the value of palliative radiation therapy in these instances. This type of therapy has long been accepted as being of considerable value in the advanced cancer patient and the average practitioner who finds himself burdened with the care of these patients is more than anxious to get some relief of this responsibility.

The medical literature is filled with reports of five year cures and survivals in the many types of malignancies and certainly the cure of this disease should be the ultimate aim. Unfortunately, however, when these statistics are reviewed it is seen that the 30, 50 or 75 per cent cures indicate respectively 70, 50 and 25 per cent incurable cases. These incurable cases are the ones of particular interest in this report. Unfortunately, these are the patients who are shuffled from one service to another and undoubtedly represent one of the most unwelcome burdens in the practice of medicine. This attitude is of our own making to a considerable degree. A parallelism has been drawn by Dr. George Pack in regard to chronic incurable medical illnesses and malignancy. In nephritis, hypertension, diabetes, arteriosclerosis and chronic heart disease, which are certainly classified as incurable, the physician, the patient and the family are satisfied with control of the disease and maintaining palliation. In contra-distinction to this, when the diagnosis of cancer is made nothing short of a guarantee of cure will suffice. Palliative therapy is eagerly accepted for all incurable diseases except cancer.

In this desire to relieve themselves of the load of these advanced cases, the medical profession has most frequently in the past referred these patients for x-ray therapy, and to the patient and family this type of treatment has become almost synonymous with incurable cancer. This has been an unfortunate circumstance and is primarily the result of an inadequate basic understanding of malignancy by the average practitioner and surgeon, including its proper care, treatment and palliation. Such an unfortunate reputation can be avoided by more freely consulting with the radiation therapist, pathologist and all those concerned in the care of each individual case of advanced cancer. In each such case of advanced disease, each patient becomes an individual problem and should be considered separately. All of the accepted modes of therapy should be considered in their proper light with the one or two most likely to give best palliation administered. The first decision to be made is to determine whether the patient is beyond palliation. In many unfortunate instances when such consultation with proper interested individuals is not obtained, pressures may be brought to bear upon the radiation-therapist who then may agree to try palliation even though there is a great doubt of effectiveness. The most common unfortunate mistake is that of the patient with no reasonable chance of benefit who undergoes token radiation to satisfy the family and relatives and to relieve the referring physician of this responsibility. Adding further burden to an already emaciated cachectic patient results in disappointment to the patient and his family and causes the public to lose faith in both the accepted methods of treatment and the integrity of the entire medical profession.

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Therefore, one of the most important decisions to be made before any mode of therapy is instituted is to determine when a case is still amenable to palliation. Prior to this, of course, positive proof of the diagnosis must be made histologically since such a diagnosis is fundamental to the consideration of therapy. Amazingly enough, there are still instances when exploratory surgical procedures are performed and what was assumed to be advanced carcinoma was found, but no biopsy was obtained. The second important decision is whether or not the lesion is curable. There are accepted criteria throughout the medical literature in this regard and the experience of the physician will aid in making this important decision. Even so, this decision is becoming more difficult to make in the face of the widening scope of therapy technics for more advanced lesions today. There is no doubt but that many of these procedures are truly heroic, although who can foretell which advanced case will be cured and which early lesion will not. It behooves the operating surgeon, however, as well as the pathologist, to have a basic understanding of the value of radiation therapy in these advanced cases and obtain sufficient consultation with the radiation-therapist before a proper decision can be made as to whether extensive radical surgery has a greater palliative value to the patient than a course of radiation therapy. It is only with this general knowledge of the treatment of advanced carcinoma by the surgeon, the pathologist and the radiologist that proper evaluation and treatment of each case is obtained. The treatment of cancer in all of its phases should not be the responsibility of a single physician but can be more adequately handled by group consultation. In many instances, the palliative surgical procedure may be avoided by proper consideration of the value of radiation therapy. Another fact to be kept in mind in making such a decision is that the postoperative field is less responsive to radiation therapy.

The decision as to when a case is no longer amenable to palliative treatment represents another problem. The radiation therapist feels that only in far advanced cases with a patient already cachectic and emaciated and thus considered in a terminal status has radiation therapy been wasted. Cases of moderately advanced cancer without symptoms should be evaluated individually. There is good argument to leave these alone until symptoms develop, thus reserving palliation until it can be of greatest value. Above all, the general condition of the patient determines to a great extent the results of radiation therapy or any therapy as far as results to be expected are concerned.

After palliative radiation therapy has been decided upon, the therapist realizes that there is no way of predicting with any degree of accuracy the degree of comfort or other palliation, nor how long it will last. Certainly, from experience and reports of the particular type of lesion histologically, one can with some reservation predict with some degree of accuracy the response; but the degree, length of life and final results are beyond prediction. Spontaneous remissions are freely reported in the literature. The natural course of disease in various areas and realization of wide variations in this natural course with possible clinical arrests of disease for long and indefinite periods must be kept in mind. Shimkin has consolidated statistics of several investigators in duration of life of untreated carcinoma with noteworthy findings. He found that 20 per cent of all patients with untreated breast carcinomas will live five years after onset; 10 per cent of untreated lymphoma and leukemia patients live five years after onset; 10 per cent of untreated bladder carcinomas five years after onset, and 3 per cent of all untreated carcinomas of the cervix five years after onset. Medical oddities do occur which bear little weight in selection of cases for specific therapy but stress caution in prognosticating results.

The radiation therapist is becoming more aware of improved palliation with adequate dosages and with sufficient planning of treatment course. A better understanding of radiation reaction and response and careful planning of the treatment course for each individual case with sufficient dosage to the tumor is paramount in successful management of each individual case. Higher energy beam therapy, including the betatron and the cobalt bomb, have added to the armamentarium of the radiologist but it is generally felt that the care, experience and proper planning of the treatment by a competently trained therapist remains of prime importance. These higher energy therapy beams cannot substitute for judgment and experience of the trained therapist and the individual day to day planning and caring for these patients. These cases of advanced disease treated for palliation should be handled as carefully and planned for as sufficiently as the ones for curative therapy. Under such circumstances, one cannot substitute higher energy beams and expect better results.

There have been other additions to the armamentarium of the radiologist including radioactive isotopes which, when used in conjunction with other modes of therapy, have been found to have considerable value in palliating various specific types of lesions. Radioactive iodine has been used and found to be a valuable asset in the palliative therapy of metastatic carcinoma from a small percentage of primary thyroid carcinomas. Radioactive gold and radioactive chromic phosphate have specific use in the treatment of the pleural cavity and the peritoneal cavity for the prevention of fluid formation in advanced carcinoma in these areas. Radioactive phosphorus has been found of value in the treatment of metastatic carcinoma to bone and is of definite value in the treatment of some lymphomas. Certainly, with such a rapidly moving field many newer radioactive sources will present themselves in the future.

Next is needed some way of evaluating the results of radiation therapy as a palliative tool. The survival time alone is an inadequate criteria since this may be affected by many other factors. Prolonged survival with continued suffering is not the desire. The relief of pain and discomfort, the healing of ulcerative lesions, the lessening of hemorrhage and infection, repair of pathologic fractures and healing of metastatic lesions in bone, eradication of cough and dyspnea, the restitution of sleep, delay in generalization of the cancer are among benefits that can be expected as indicative of satisfactory palliative response. One or all of these may be accomplished without prolonged life and still be well worth while. Enabling these patients to return to a useful, family, social and professional life for any length of time is of immeasurable value to all concerned. The postponement as well as the shortening of the terminal suffering by these palliative effects also can be considered a satisfactory accomplishment. Harvey and his associates at the University of Illinois, in discussing palliative therapy of advanced pulmonary malignancy, consider the following factors in evaluating results, which will also hold true for malignancies in any area:

I. The Objective Local Effect. This is judged by physical examinations, by comparative measurements on the surface, by palpation, by roentgenograms, and by histologic studies, either serial during life or by final comparison at autopsy.

II. The Clinical Symptoms. Such criteria as pain, cough, dyspnea and dysphagia are used and are evaluated in terms of effort expended, medication required, and changes in habits or preferences. These impressions are best gained from the patient, his family and the physician.

III. The General Condition. This relates to weight, strength, working ability, psychologic attitude to normal family and social life, and duration of useful life.

IV. The Absolute Survival Time From the Start of Radiation.

V. The Extent of Terminal Distress. This is evaluated in terms of postponement, duration as compared with survival time, and intensity.

In any discussion of the usefulness of radiation therapy some general understanding of the radiosensitivity of tumors is desirable. The effect of radiation on both normal and neoplastic cells has been the subject of much investigation. The morphologic effects of radiation on the tumor cells are well known and consist primarily of swelling and vacuolization of the nucleus with fragmentation of chromatin material. In the more severe injuries the nucleus disintegrates completely. With the complete destruction of the cell numerous abnormal and bizarre forms are seen with giant abnormally shaped nuclei. In the cytoplasm ballooning of the cell occurs, hydropic degeneration and rupture of the nuclear membrane. The sensitivity of the tumor cell is more or less proportional to the rate of metabolism of the cell. The tumor cell is most susceptible to injury during mytotic activity, especially during the prophase. The effects of radiation on the surrounding stroma tissues are fully as important as are the changes in the neoplastic cells. Fibrosis and hyalinization of the connective tissue with endarteritis, vascular thrombosis and endophlebitis to produce a relatively avascular, densely fibrotic connective tissue bed results from the radiation. Similar reaction occurs in the stroma of the neoplastic tissue with the production of a tumor bed deleterious to the further proliferation or extension of the tumor. The vascular and lymphatic channels are narrowed or obliterated and the connective tissue is densely fibrosed. In this way the nutritional requirements for further neoplastic proliferation are reduced.

Some brief discussion of the factors that influence the radio-sensitivity of tumors is also necessary and among these should be considered the following: (1) The degree of inflammatory reaction increases resistance to therapy of malignancies. (2) The type of stroma tissue or tumor bed is again of major importance. (3) Vascularity of the tumor tissue greatly affects the radio-sensitivity. (4) A recurrent lesion previously irradiated or following surgery is more resistant than the original tumor. (5) The age of the patient is directly correlated with the radio-sensitivity of the tumor since it is felt that mytotic activity of the cells of the younger individuals would presuppose an increased sensitivity to the effects of radiation. (6) Mucin producing tumors interfere with the destructive effect of radiation and therefore are less responsive. (7) Everting types of new growths perhaps because of the cellularity and minimal amount of stroma and lack of invasiveness would respond more rapidly and more thoroughly. (8) The personal factor must also be weighed since it is evident that some individuals have a greater immunity to the effects of radiation while others have a greater susceptibility. (9) The situation of a specific tumor is of prime consideration in determination of the relative sensitivity of that tumor. An excellent example of this factor is the variation in the radio-sensitivity of squamous carcinoma of the skin as compared to a similar lesion histologically in other locations, as the bronchus, esophagus or cervix. The results in therapy of the skin lesion is much more gratifying than that obtained with similar radiation therapy to the other three areas described. Probably the main factor in this differential of responsiveness is the ever present possibility of producing irreparable damage to surrounding tissues. This leads one to doubt seriously the value of classifying a particular type of tumor as being radio-responsive, radio-sensitive or radio-resistant, irrespective of its location.

A technical discussion of the mode of radiation therapy is beyond the scope of this paper. Any discussion of the response of lesions in various locations, or particular locations, to radiation therapy—either curative or palliative—is also beyond the scope of this paper. Such a discussion must necessarily be detailed and no specific statements can be made. It is my opinion as well as the opinion of most radiation therapists that one cannot predict with any degree of certainty the type of response to be expected of a lesion in any location. One is frequently amazed by an unusual response of a rather radio-resistant tumor to curative or palliative radiation therapy. Many factors must be taken into consideration, as were discussed, including the natural course of the disease with periods of remission and reactivation. However, even so, there is certainly no question but that radiation therapy may be considered in any advanced lesion in which the general condition of the patient is satisfactory and in which such therapy can be given without undue hardship. To verify this impression, three representative cases are presented which may be considered as advanced malignancies in which histologically the response to radiation is certainly questionable and this may also be questioned by the location of the lesion. In at least two of these cases it was questioned whether any therapy would be of value, and yet palliation was definitely obtained. These three cases do not represent medical oddities but represent a sizable group of such advanced malignancies which can be satisfactorily palliated with radiation therapy.

The cases presented are summarized and only the important details have been included.

CASE REPORT

Case 1. K. R., a 29 year old white female was admitted to the hospital on April 3, 1951, with a history of a mass in the abdomen since January (approximately three and a half months). There was a history of more than usual constipation since delivery of a normal infant in August of 1950. One week prior to admission she began having cramping abdominal pain and the mass was definitely larger than had been previously noted by the patient. The past history and the family history were nonrevealing. Definite evidence of a 5 pound weight gain in the last two months was noted by the patient.

Physical Examination: Examination was essentially normal except for the findings in the abdomen. On examination of the abdomen, a mid-abdominal tumor was palpated which was approximately the size of a fetal head. The mass was irregular and the surrounding intestinal structures appeared to be attached to the lesion. Peristaltic sounds were increased in intensity. Pelvic examination revealed that the uterus was not attached to the mass and the adnexae were relatively clear. The abdominal mass was described as rubbery, nontender and apparently extended into the lower abdomen as well.

The patient had a complete work-up including x-ray studies with I.V.P., gastrointestinal series and barium enema being done. A retroperitoneal tumor was diagnosed by the studies obtained. At operation a tremendous retroperitoneal reticulum cell sarcoma was found, as diagnosed histologically. The lesion involved all the mesenteric nodes and the mass extended primarily over to the left abdominal cavity. The mass could not be removed surgically and the patient was referred for radiation therapy.

When first seen for radiation therapy the mass was apparently more prominent and gave the impression of a six to seven month pregnancy, although the mass extended higher into the abdomen. Radiation therapy was started on May 2, 1951. Conventional radiation therapy was administered with a 200 k.v. unit, HVL 2.2 mm. copper and 50 c.m. TSD. The patient received radiation to the entire abdomen anteriorly and posteriorly from May 2 through June 14. Further details of technic and dosages are excluded except to say that it was felt that an adequate tumor dose was administered for the type of lesion. The patient has done exceedingly well since that time and has received radiation therapy on numerous occasions to recurrent disease involving both axillary regions, both cervical areas, facial nodes, bilateral inguinal nodes, posterior auricular lymph nodes bilaterally, subcutaneous nodules in various areas, apparently similar lymphoid involvement, as well as intro-oral lesions. All the lesions responded readily to small doses of radiation therapy and the patient has been able to carry on a normal useful life. There has been no recurrence of the intro-abdominal lesion since the administration of the first dose of radiation therapy. The patient was last seen on April 21, 1958, and has maintained a status quo.

This represents an unusual response to what was thought to be a palliative radiation therapy to a large retroperitoneal reticulum cell sarcoma. The disease is controlled even though generalized by means of limited and properly administered radiation therapy to areas of involvement as they occur and at varying intervals. The patient has survived, leading a normal life, for seven years since the diagnosis of the disease.

Case 2. W. K., a 36 year old white male was admitted to the hospital with a history of a mucinous adenocarcinoma of the large bowel with extensive intra-abdominal involvement. The patient had had an exploratory operation approximately ten months previously and had local recurrences of skin lesions over the lower abdomen which were treated satisfactorily with radiation at that time. The patient was admitted with massive ascites and pressure symptoms. He was admitted on May 3, 1952. A paracentesis was done a few days previously, at which time 10½ quarts of fluid were removed from the abdomen and large masses were palpated in the lower abdomen. The remainder of the general physical examination revealed that the patient was in otherwise general good condition and there was no evidence to indicate that a terminal status was present. Radiation therapy as a palliative measure was instituted on May 3, with therapy being administered to the anterior and posterior abdomen. Therapy was administered using conventional technic, including a 200 k.v. Westinghouse unit, HVL 2.2 of copper and 50 c.m. TSD. Therapy was administered from May 3 through May 28, at which time there was evident decrease in the size of the masses in the lower abdomen. Edema of the lower extremities and the scrotum, which was present previously, had subsided and the rapidity of fluid formation was definitely decreased. The patient was considerably improved symptomatically and returned to useful activity. The lower abdominal masses had completely disappeared by that time, but there continued to be regular increase in the ascites with taps necessary at frequent intervals. On August 1, 1952, due to the unusual response in the lower abdomen, radiation therapy was administered to the upper abdomen from August 1 to August 26, 1952. The patient again obtained symptomatic relief and was able to care for himself. Fluid formation in the peritoneal cavity was depressed to a moderate degree. On December 11, 1952, the patient was readmitted to the hospital in a terminal state and he died on January 16, 1953.

In this case, an unusual response of a relatively radio-resistant mucinous carcinoma of the large bowel with definite palliation was effected over a period of seven months. The criteria for definite effect of palliative therapy according to the criteria listed, are thought to be satisfied in this instance.

Case 3. D. M., a 67 year old white female was admitted to the hospital with a history of recurrent spells of diarrhea, cramping abdominal pain and bloating with fever and chills. The patient was admitted in June of 1955, and a general physical examination and work-up was obtained. Exploratory operation on July 1, 1955, revealed an undifferentiated carcinoma with the parietal peritoneum studded with metastatic carcinoma. There was a large mass in the pelvis involving the right ovary which was thought to be the primary lesion. The pathologic study revealed undifferentiated carcinoma metastatic to omentum and the primary lesion could not be determined although it was thought to be ovarian in origin. At operation there was definite evidence of increased peritoneal fluid present, which was suspected prior to the operation. Radiation therapy was started on July 19, 1955, and continued through August 17, 1955, with therapy being administered to four lower abdominal parts. Therapy was again started on September 13, 1955, and administered through September 26, 1955, to the upper abdominal areas. Once again the conventional technic was used, with 200 k.v. Westinghouse unit, HVL 2.2 mm. of copper and 50 c.m. TSD. A remarkable response to radiation was evident with all of the lesions subsiding and flattening of the abdomen. Fluid accumulation was stopped and the patient improved considerably symptomatically. The patient has returned to a useful life and her previous occupation since therapy was completed. The patient was last seen in March 1958, and has maintained a status quo requiring no further definitive therapy.

It is felt that this case demonstrates an excellent palliative response to radiation therapy in an advanced carcinoma apparently arising from the ovary and extending throughout the peritoneal cavity. Palliation in these lesions is not as unexpected as in other areas, but this degree of response and for this period of time, is considered rather unusual.

SUMMARY AND CONCLUSIONS

1. A reevaluation of the present ideas in regard to diagnosis and treatment of cancer is recommended to include the proper palliation of the advanced cancer patient. The outlook should correspond to that by patient and family in other medically incurable diseases which are controlled by palliation today.

2. Cancer treatment, whether curative or palliative, is no longer a one man job. It is now realized that free consultation with all the specialized fields gives the patient the best chance of cure as well as best chance for proper palliation. Group consultation is of utmost importance in deciding on proper palliative treatment.

3. Histologic proof of all cases of malignancy must be obtained before any treatment is considered.

4. Decision as to whether a case is amenable to palliation or not must then be made and the type of treatment should be decided by group consultation with the pathologist, radiologist, surgeon and family physician as is best for each individual case. The general condition of the patient is of utmost importance and only in cachectic patients in a terminal status is therapy felt to be wasted. Only these cases are thought to be hopeless.

5. Evaluation of results and criteria for such evaluation has been discussed.

6. A discussion of radiosensitivity of tumor cells, tumor stroma and tumor bed has been covered as well as extrinsic factors.

7. There is no way to predict radio-responsiveness of tumors irregardless of location or histologic pattern in any particular case and any patient in good general condition deserves a trial of radiation treatment. Three cases are presented in which this unexpected response was obtained.

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Carcinoma of the Lung

Differential Diagnosis

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In the differential diagnosis of carcinoma of the lung, any disease that will affect the pulmonary system must be considered. In differentiating the different diseases of the lung, the value of any diagnostic procedures depends entirely upon the timely utilization, proper integration and correct interpretation with the total clinical picture.[9]

The most important factor in the diagnosis of carcinoma of the lung is the awareness of its possible presence. An early correct diagnosis is essential for the adequate and correct treatment. Diagnostic methods have been perfected to such a degree that one can expect a positive diagnosis in approximately 75 to 80 per cent of the cases. In the remainder, the diagnosis can be determined only by exploratory thoracotomy.[1] The question as to what are the most reliable diagnostic methods upon which to rely cannot arbitrarily be determined in advance, but a comprehensive plan should be outlined from which pertinent procedures are then selected, depending upon the case.[6]

A careful history should serve as an introduction to every study of any lung disease. In some, no symptoms suggestive of a chest problem will be elicited; however, it is helpful to learn of a previous tuberculous infection, contact or a recent surgical episode possibly complicated by aspiration, or of any surgery in the past for removal of a primary lesion. In many cases, medical care is sought because the symptoms most frequently encountered include: cough, hemoptysis, dyspnea, chest pain, weakness and loss of weight. The persistence of any of these should make one doubly suspicious that one is not dealing with a transit infectious process.[6]

Social history should be obtained in all pulmonary diseases. Such diseases as silicosis, asbestosis, pneumoconiosis of soft coal workers, and so on, may be suggested from the patients' occupational history. The geographic location may necessitate consideration of coccydiomycosis, histoplasmosis, echinoccal diseases. In a large percentage of cases of carcinoma of the lung the following symptoms are apt to be present: (1) progressive weakness, (2) loss of weight without apparent cause, (3) lack of fever or other indication of infection, (4) cough—often dry, (5) occult bloody expectoration, (6) duration of three months or more, (7) usually age of 50 or more.

PHYSICAL EXAMINATION

There are no physical signs of lung carcinoma that are typical, except when the carcinoma is far advanced. Any physical signs which may be elicited depend on the time, site and complications of growth. In many instances, the abnormal signs will be missed. If the tumor mass is covered by at least 5 cm. of the surrounding lung, its presence cannot be revealed by any change in the percussion note. A majority of diseases involved in the lungs are localized to that organ, but a significant minority are merely infections of a remote or systemic disorder. The discovery of a phlebothrombosis or thrombophlebitis in an extremity will establish an etiologic diagnosis for pulmonary embolis or infection. Venous engorgement, hepatic enlargement and dependent edema incriminate the heart as the responsible organ rather than the lungs in a patient complaining of a cough, or blood-tinged sputum and dyspnea.

Blood studies in carcinoma of the lung are of little diagnostic aid. Erythrocytosis will accompany any disease or condition interfering with adequate oxygenation of the red cells. Leukocytosis generally accompanies a fever and it is suggestive of an associated infection such as pneumonia. Stool examination may reveal important diagnostic information such as in Ascarius Lumbricordis, Strongyloides Stercoralis or Loefflers syndrome; other ova in the stools are of great importance. When Endomoeba Histolytica cysts are found in the feces, the etiology of a lung abscess may be suggested.[9] Precipitin complement fixation tests are valuable in diagnosing virus or fungus disease. The sedimentation rate appears to be an unsatisfactory test upon which to base judgment.

There are other aids in making an early diagnosis for cancer.

1. *Fluoroscopy and X-rays.*—On fluoroscopy the mobility and other dynamic features may be considered during the different phases of respiration. Aneurysms may be diagnosed by their pulsations and so can be differentiated from a solid tumor. However, fluoroscopy is not a definite substitute for x-rays. Chest x-ray examination of both posterior-anterior and lateral views must be made; a lesion which is large enough to cast a shadow can be detected on the roentgenogram. Difficulty is encountered in hilar lesions because in this area small lesions in the lung are encountered occasionally as an expected finding or it may be brought to one's attention because of symptoms directly suggestive of pulmonary disease.[6]

These may be round ovoid nodules with sharp or indefinite borders, which are located completely within pulmonary tissue. Usually the nature of such lesions cannot be determined, save by surgical resection and microscopic study.[4]

In some of these early lesions which are so small as to occlude the bronchus only partially, obstructive emphysema may be present. This is due to the fact that the bronchus is not a rigid tube but dilates during inspiration and contracts during expiration. However, if the tumor completely occludes the bronchus, atelectasis with a tell-tale shifting of the mediastinum toward the affected side and the development of the characteristic shadow and visible elevation of the diaphragm occur. Now that many physicians are aware of the solitary lesion, these lesions are noted more often. It is important that the roentgenologist interpret a film in which such a lesion had been reported as a small infiltration, inactive or healed tuberculosis and now is being reported as a localized pulmonary lesion of unknown origin. Barium swallow can be given to differentiate disease of the esophagus and also diaphragmatic hernia.

2. *Cytologic Examination of Sputum or Bronchial Washings.*—Cytologic examination of bronchial secretions is a reliable method of making a positive diagnosis of bronchogenic carcinoma. This material can be obtained either by bronchial aspiration or by expectoration.[5] In every individual having a productive cough, careful analysis of the sputum should be made.

Examination of sputum can reveal trophozites of Endomoeba Histolytica, fungus infection, identification of the hooklets or membranes of a cyst echinnoccal disease, tubercle bacilli, fat globules in lipoid pneumonia, high number of eosinophils in Lofflers syndrome, foul smelling sputum in lung abscess, characteristic sulfur granules in actinomycosis and malignant cells in carcinoma. When five or more sputum specimens are examined, the accuracy of such examinations rises to from 80 to 90 per cent. So far as accuracy is concerned, the diagnosis of pulmonary carcinoma through exfoliative cytology is practically on a par with malignant disease of the female genital tract.

The accuracy of the work varies directly with the experience of the cytologist.[7] A smear containing cancer cells usually is recognized by an experienced man. The cells stand out prominently in contrast to other elements and they are often clustered in characteristic clumps. Good judgment must be exercised in cases in which the cells are not markedly atypical or in which only a few suspicious cells are found. In doubtful cases, additional smears should always be examined.[8] If the sputum is examined carefully for tubercle bacilli, predominating pyogenic organisms and fungi, a positive laboratory report of any of these organisms should, however, be correlated with the history and physical examination and x-ray since any of these conditions may be present in addition to carcinoma.

3. *Bronchoscopy.*—Bronchoscopic examination under local anesthesia is a minor procedure which should never be omitted when dealing with a lesion of the lung. If affords the physician the opportunity to visualize the lesion directly. Growths in the main bronchi and their primary division may be seen and biopsied.

However, it is unfortunate that by bronchoscopy only 33 per cent of carcinoma of the lung can be diagnosed. This is because the majority of the tumors are in the upper lobe and some are in the periphery beyond bronchoscopic vision. However, the secondary effects in the bronchial tree, such as compression by extraneous lesions, rigidity, displacement, deformity, infiltration of corina and lack of mobility cannot be seen. It is important to remember at bronchoscopy that that which is negative at the onset may give positive findings when repeated later.

4. *Needle Biopsy.*—The general consensus of opinion in this country is that needle biopsy should not be performed on patients who may have an operable lesion for fear of further spreading the tumor by implantation of tumor cells in the tissues transversed by the biopsy needle.

5. *Thoracentesis.*—When pleural fluid is present it should be aspirated and examined. Part of the fluid should be consigned for bacteriologic examination. The specific gravity should be obtained on all specimens. This can differentiate between an exudate or transudate. If the fluid withdrawn is grossly bloody, it is suggestive of tuberculosis, pulmonary infarction, congestive heart failure or inoperable carcinoma of the lung. The centrifuged sediment of the pleural fluid should be examined for neoplastic cells and, if present, the lesion is most probably inoperable. Methylene blue may be injected into the pleural cavity space and if the sputum has a bluish color in twenty-four hours this is diagnostic of a broncho-pleural fistula.

6. *Lymph Node Biopsy.*—Any suspicious lymph nodes or subcutaneous nodules of recent origin should be removed and examined microscopically before definite therapy is instituted.

7. *Exploratory Thoracotomy.*—If all other examinations are nondiagnostic, it is probable that the more frequent use by competent surgeons of exploratory thoracotomy in patients in whom the diagnosis of lung cancer is suspected in a state that cannot be proved, will lead to greatly improved results of treatment. This is especially true in the silent or relative asymptomatic lesions. Indeed, with a more widespread use of routine examinations of the chest by fluoroscopy and x-ray, and the more frequent detection of asymptomatic lesions by this means, exploratory thoracotomy will be the only means of establishing the diagnosis in a high proportion of cases.

The following twelve cases are taken from the files of St. Louis County Hospital, Clayton, and from St. Francis Hospital, Cape Girardeau. These cases show how similar many of the pulmonary diseases are on x-ray and that x-ray alone is not sufficient for complete and correct diagnosis of a lesion of the lung.

CASE REPORTS

Case 1. A 39 year old negro male had a history of fever of three weeks duration accompanied by malaise and a cough productive of one half cup of yellowish-brown sputum. X-ray of the chest revealed an opacity obscuring the upper portion of the right chest, with a sharp horizontal inferior margin. Within the center of this opacity there was an irregular sharp area of radiolucence, 2½ by 3½ cm. in size. with a sharp inferior horizontal margin. This suggests possible active tuberculosis. Diagnostic work-up was done and showed this to be active tuberculosis.

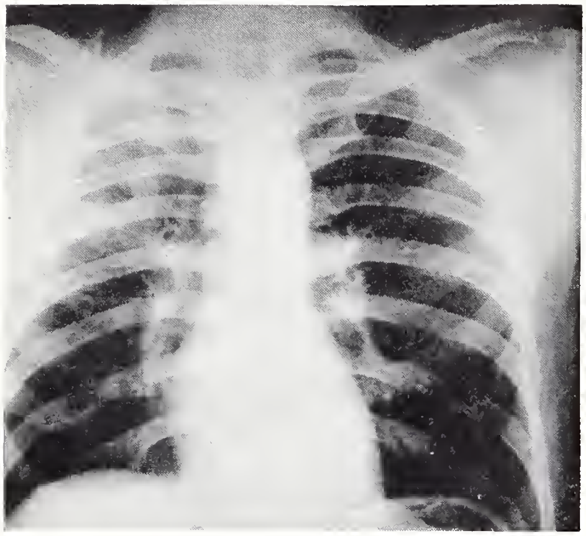
Fig. 1. Case 1.

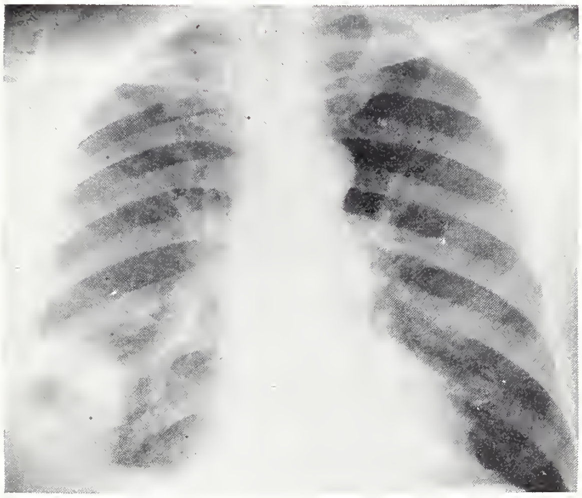
Fig. 2. Case 2.

Case 2. A 60 year old negro male was admitted for surgical repair of an inguinal hernia. Routine chest examination was done and it was reported that there was an area of consolidation occupying the anterior aspects of the right lower lobe, measuring about 7 by 7 cm. in size and presenting a fluid level. This was thought to be either a pulmonary abscess, tuberculosis or carcinoma with cavitation. Diagnostic work-up and thoracotomy proved this to be a squamous cell carcinoma.

Case 3. A 77 year old white female was admitted with a fever of 103 F., general malaise and nonproductive cough. She had experienced sharp, sudden, knife-like pain five days previously which had lasted only a few minutes. Since that time she had had anorexia and weight loss. X-ray of the chest revealed an irregular area of consolidation extending laterally from the right hilum which could be lobar pneumonia, but the possibility of neoplasm could not be definitely excluded. After diagnostic work-up this proved to be a lobar pneumonia.

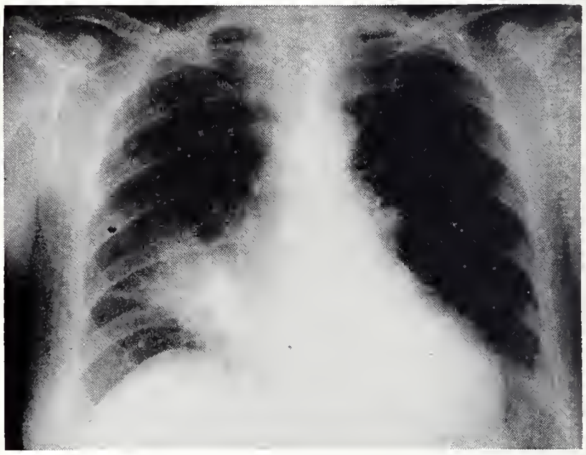
Fig. 3. Case 3.

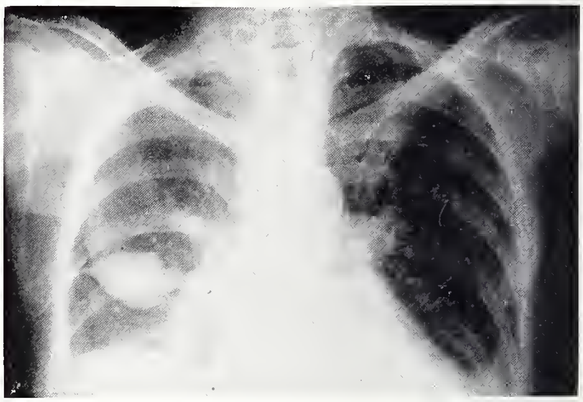
Fig. 4. Case 4.

Case 4. A 61 year old white female was admitted to the hospital for a work-up. Patient was senile and incoherent and dehydrated. She had lost twelve pounds of weight in two months. X-rays of the chest revealed an opacity on the right in or adjacent to the horizontal interlobar fissure, which had a sharp superior and in-

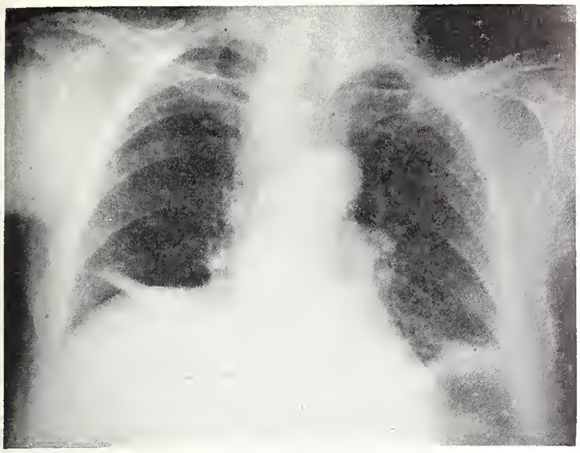

Fig. 5. Case 5.

ferior margin. Diagnostic work-up showed this to be a localized pleural effusion.

Case 5. A 76 year old white female was admitted to the hospital because of epigastric pain of one and one half years duration, diagnosed as a duodenal ulcer. On routine proctoscopic examination the sigmoid colon was perforated. On the fifth postoperative day, she began complaining of chest pain. X-ray examination revealed an area of segmental atelectasis. This cleared up on conservative therapy.

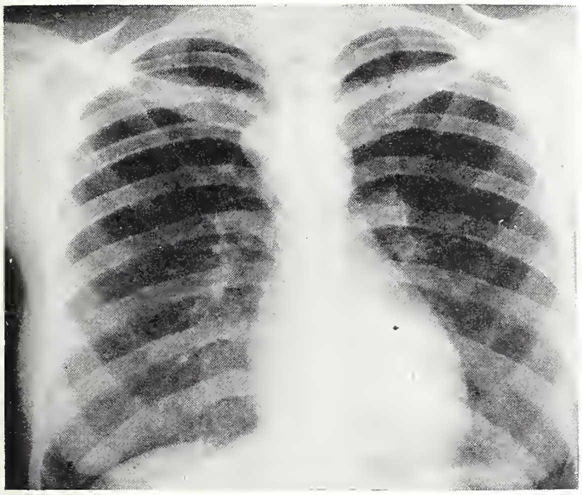

Fig. 6. Case 6.

Case 6. An 18 year old negro female was admitted with complaints of anorexia for six months and weight loss of 40 pounds in one year. X-ray of the chest revealed a sharply outlined opacity in the right paravertebral region at the level of the 4th and 5th ribs posteriorly which measured about 2 by 3 cm. in size. This showed slight transmitted pulsation, but no extensive pulsation. Diagnostic work-up was done and at thoracotomy a tuberculoma was found.

Case 7. A 30 year old white male was admitted with complaints of having had a right colectomy for carcinoma of the colon ten months previously. He had felt well until about two months prior to admission. At that time he noticed a slight tickling in his throat causing a slight cough. He also noticed a hard supraclavicular node, which was biopsied. This showed metastatic carcinoma of the colon. X-ray of the chest was done and revealed extensive peribronchial infiltrative processes, radiating out from the hila into both lungs, probably lymphangitic spread of carcinoma of the lungs. At postmortem examination, there was extensive lymphangitic spread of carcinoma into both lungs.

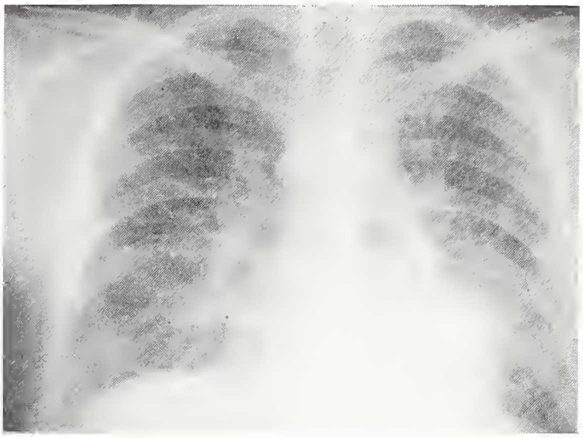

Fig. 7. Case 7.

Case 8. A 54 year old white male was admitted with the chief complaint of hemoptysis of three months duration. X-ray examination of the chest was done and showed a fairly well circumscribed oval shaped mass in the parenchyma of the left lung projecting posteriorly and laterally to the hilum. This measured approximately 6 by 7 by 9 cm. in size and suggested an infiltrative parenchymal lesion and neoplasm was given first consideration. Diagnostic work-up was done and on exploratory thoracotomy an undifferentiated epidermoid type of carcinoma was found.

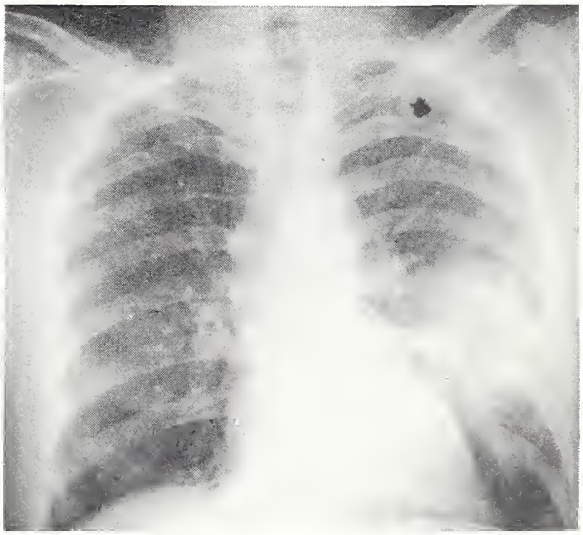

Fig. 8. Case 8.

Case 9. A 58 year old white female had an x-ray taken by the mobile chest unit and was told that she had a "spot" on her lung. She was admitted for further investigation. X-ray of the chest was done at the hospital and revealed a rather sharply outlined oval shaped opacity measuring 1½ by 2 cm. in the left lung, lateral, superior and anterior to the superior pole of the hilum. This was thought to be a benign tumor of the lung. Diagnostic work-up was done and on exploratory thoracotomy a hematoma was found.

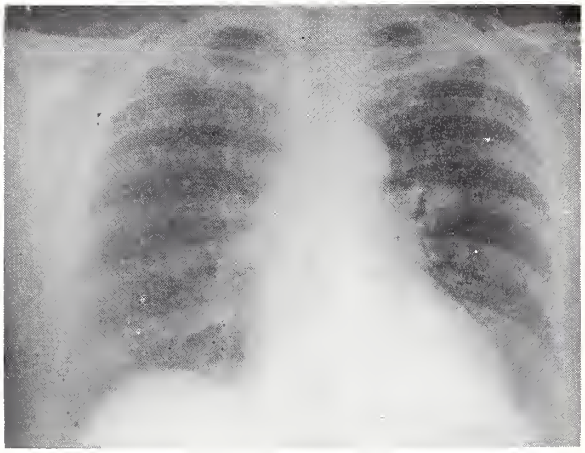

Fig. 9. Case 9.

Case 10. A 60 year old white female was admitted to the hospital with the history of dyspnea, edema of the ankles and rales in both lungs. X-ray of the chest was done and revealed what was thought to be localized pleural effusion. She expired before definite diagnosis could be made. On postmortem examination a pleural mesothelioma was found.

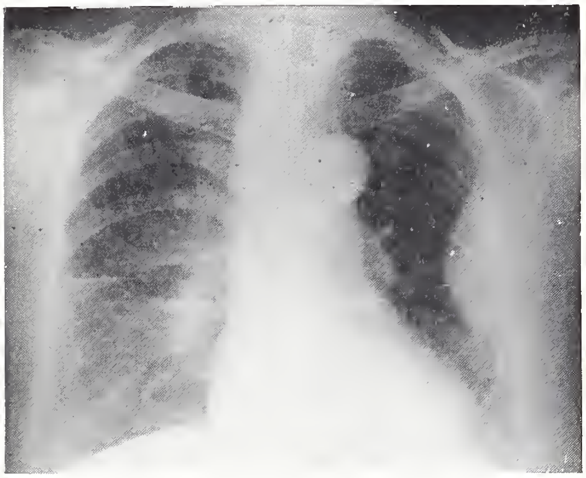

Fig. 10. Case 10.

Case 11. A 48 year old white male went to see his local doctor for a thorough check-up. He had no complaints at that time. Routine chest x-rays showed a distinctly outlined, round homogenous density extending from the lateral aspects of the right hilar shadow and extending anteriorly and a second smaller homogenous distinctly outlined rounded density apparently lying lateral to the larger density. These were about 3 cm. and 1½ cm. in diameter. Diagnostic work-up was done, but everything was reported as negative. Bronchoscopy and exploratory thoracotomy were done. A primary leiomyosarcoma of the lung was found.

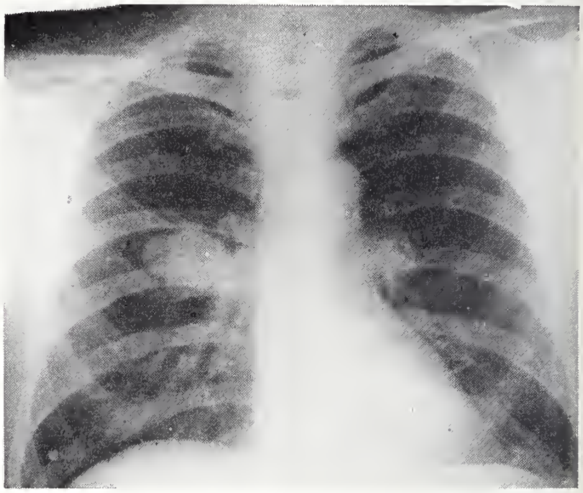

Fig. 11. Case 11.

Case 12. A 47 year old white male who for three months had noticed a pleuritic type of pain in the right lobe of the chest one month ago noticed some hemoptysis. He has felt well otherwise and had not had any weight loss or anorexia. Routine chest x-ray revealed a homogenous opacity obscuring the right cardiophrenic angle. This had a rather sharp delineated lateral border. Bronchoscopy was done and biopsy of the tumor mass occupying the right main bronchus

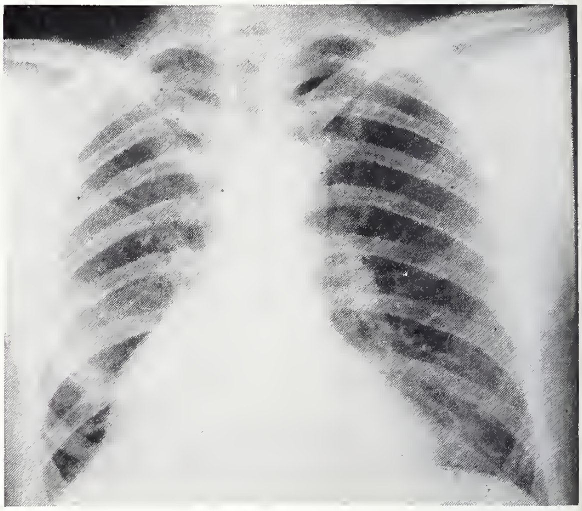

Fig. 12. Case 12.

Chest Trauma

CHARLES P. McGINTY, M.D., *Cape Girardeau*

INJURIES TO THE thoracic cage and its contents have become quite common, along with the increasing number of automobile and industrial accidents.

The driver of a car who strikes against the steering wheel is not the only one to suffer trauma to the chest. Passengers thrown from the car or into the dashboard also incur chest injuries. In falls from buildings, ladders, and so on, there is a high incidence of chest injury.

Damage to the chest is usually associated with multiple injuries to other portions of the body such as spinal, pelvic and long bone fractures. Frequently, a concomitant head injury will be encountered.

These injuries must be treated for the most part by the general surgeon away from the large medical center.

CLASSIFICATION OF CHEST INJURIES

- I. Injuries to the chest wall:
  - A. Superficial:
    - 1. Lacerations, abrasions and burns.
    - 2. Contusions and hematomas.
  - B. Fractures and separations of ribs, cartilages and sternum:
    - 1. Simple.
    - 2. Multiple.
    - 3. Flail chest.
- II. Injuries to thoracic viscera:
  - A. Injuries secondary to fractured ribs:
    - 1. Laceration of lung, major bronchi, or vessels:
      - (a) pneumothorax.
      - (b) hemothorax.
      - (c) mediastinal emphysema.
    - 2. Laceration of spleen or liver.
    - 3. Subcutaneous emphysema.
  - B. Other injuries:
    - 1. Interstitial hemorrhage and edema of lung ("lung hematoma").
    - 2. Myocardial contusion.
    - 3. Rupture of diaphragm.
    - 4. Penetrating missile wounds.
    - 5. Stab wounds.
  - C. "Traumatic wet lung syndrome."

THERAPEUTIC PRINCIPLES IN THE MANAGEMENT OF CHEST INJURIES

- I. Methods used to clear the tracheo-bronchial tree:
  - A. Encourage coughing combined with proper use of analgesic drugs.
  - B. Intratracheal suction with catheter.
  - C. Cold steam inhalation as "Vapo-Jet," Alevaire.
  - D. Bronchoscopy.
  - E. Tracheotomy.

- II. Stabilization of the thoracic cage:
  - A. Bed rest.
  - B. Use of sand bags.
  - C. Pad and taping.
  - D. Towel clip or wire traction.
  - E. Interosseous wiring.
  - F. Endotracheal positive pressure insufflation.

- III. Maintain expansion of lung and obliteration of pleural space:
  - A. Needle aspiration of air or blood.

Carcinoma—(Continued)

below the upper lobe proved the lesion to be a squamous cell carcinoma.

SUMMARY

I would like to stress the importance of a careful history and physical examination in diseases of the lung and, from this, other diagnostic tests that must be done can be determined. Also to improve the rate of cure in carcinoma of the lung, I believe routine posterior-anterior and lateral x-rays of the chest should be done, even though there is no indication for the chest x-ray and, if a lesion is found on x-ray, further diagnostic work-up definitely should be done.

937 Broadway

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B. Thoracostomy tube with underwater drainage.
C. Open thoracotomy for evacuation of clot and/or suture lacerated lung.

IV. Supportive care:
  A. Treatment of shock:
    1. Intravenous fluids, plasma expander, and blood.
    2. Sympathomimetic drugs, "Levo-phed," "Vasoxyl."
    3. Steroid therapy, "Solu-Cortef," "A.C.-T.H."
  B. Relief of pain:
    1. Analgesic drugs.
    2. Intercostal blocks.
  C. Treatment of concomitant injuries:
    1. Splinting of fractures.
    2. Arresting of hemorrhage.
    3. Treatment of head injuries.
    4. Treatment of abdominal or visceral injuries.
  D. Proper use of oxygen.
  E. Antibiotic therapy.

CLINICAL MATERIAL ILLUSTRATING THE DIAGNOSIS AND TREATMENT OF CHEST INJURIES ON A COMMUNITY HOSPITAL LEVEL

The diagnosis of superficial injury to the chest is usually obvious on examination, and the treatment requires the use of ordinary surgical principles which need not be discussed.

Simple rib fractures usually make themselves known quite forcibly in a conscious patient because of the severe pain associated with them. They are confirmed by x-ray usually. Occasionally, simple, nondisplaced rib fractures do not show on the early films, especially on a wet film. The diagnosis is made on a clinical basis in these cases and then checked by x-rays one or two weeks later.

CASE REPORTS

Case 1. This 46 year old white male was admitted to the hospital after an automobile accident. He complained of severe pain in the right anterior chest. X-rays of the chest for rib detail showed no fractures. He was observed for a few days at the hospital until the pain was much less and he was allowed to go home. He was seen in the office seventeen days later, at which time x-rays of the chest revealed healing nondisplaced fractures of the 7th and 8th ribs on the right in the mid-axillary line.

This case demonstrates that the fractured ribs may not be seen on the initial x-ray.

Simple rib fractures may be completely missed in an unconscious patient unless there is palpable displacement or associated crepitance.

The treatment of uncomplicated rib fractures is usually quite simple. The main points are (1) to prevent complications from developing and (2) give the patient a reasonable degree of relief from his discomfort. If there are other major injuries, bed rest and mild use of analgesic drugs with some antibiotic coverage usually fulfills these requirements. Atelectasis and accumulation of bronchial secretions usually can be avoided by simply encouraging the patient to cough.

Case 2. This 24 year old woman was transferred from another hospital three days after an accident. She was suffering from a fracture of the mid-shaft of the left femur, fracture of both bones of the right forearm and multiple rib fractures. She complained of severe pain in the chest. The chest was tender to palpation. She was running a temperature of 101.6 F. Respirations were shallow and painful. X-ray of the chest showed fractures of the 2nd, 3rd, 4th, 5th and 6th ribs in the mid-axillary line on the right. There was associated opacity in the right chest, apparently pleural reaction and pleural thickening along the lateral aspect of the chest. There was no pneumothorax or subcutaneous emphysema. There was also a fracture of the 3rd, 4th and 5th ribs in the mid-axillary line on the left. There were similar changes in the left chest. The patient was put to bed and kept on Dihydrocillin, ½ gram, every 8 hours. She was given Demerol, 75 mg. every four hours as needed to keep her relatively comfortable. During this time, however, she was constantly encouraged to cough and clear the secretions from her chest. Neither endotracheal aspirations nor intercostal block was necessary in this case. The chest rapidly cleared so that the patient could undergo general anesthesia six days later for internal fixation of the femoral fracture.

This demonstrates that rather severe fractures of the ribs can be managed on bed rest, antibiotics and analgesic drugs if the patient is encouraged to cough and clear his own secretions in a satisfactory manner.

Taping of ribs is generally to be discouraged or at least used in selected cases. The danger of atelectasis and pneumonia is increased by markedly limiting the respiratory excursion of a portion of the thorax. There is also considerable question as to how much pain relief taping of the chest actually affords.

Case 3. A 43 year old white male was admitted to the hospital with the history of having been injured in a truck accident the day before in a nearby town. He was first treated by another physician for injuries to extremities and fractured ribs. Treatment for the fractured ribs had consisted of a tight chest binder completely encircling the lower one half of the chest. The patient was found to have fractures of the left 5th, 6th, 7th, 8th, 9th and 10th ribs. He had a bilateral pneumonitis. A fracture of the tip of the fibula on the right was present, with severe sprain of the right ankle. The patient was complaining of pain in the chest. He was put to bed and the chest binder was removed. The patient was given analgesic drugs consisting of codeine, grains ½, with A.P.C., as often as needed for chest pain. Occasionally, 75 mg. Demerol were needed for the pain. He was also given Dihydrocillin ½ gram, twice daily. The patient improved clinically and two days later x-rays of the chest showed improvement on both sides. The patient was discharged on the sixth day feeling much improved.

This case is used to illustrate how the chest binder might have actually increased the amount of pneumonitis. It certainly demonstrates that it did not relieve the patient's pain.

The cough depressant effect of analgesic drugs is less to be feared than mechanical splinting of the chest.

Fractures of the rib cartilage and costochondral separations must usually be diagnosed by physical examination. Marked tenderness on pressure or actual palpable separation with "slipping rib" must be relied on because of the inability of x-ray to demonstrate these injuries. Their treatment is similar to that of rib fractures but chondral fractures heal poorly. Occasionally a centimeter or so of a rib cartilage must be resected to remedy painful overriding or slipping.[2]

Fractures of the sternum are relatively rare. The diagnosis may be suspected clinically because the patient complains of pain and palpable motion of fragments may be noted. Sternal fractures are nearly always accompanied by fractures of other portions of the chest cage. The fracture is usually in the transverse axis and frequently at the junction of the manubrium and gladiolus. Occasionally, open reduction and internal fixation by interosseous wiring or through and through pinning may be required in the management of a severely displaced sternal fracture.[2]

Crushed or flail chest presents a much more complex problem than simple rib fracture. One segment of the chest may be flail and demonstrate paradoxical motion on respiration or the entire chest may be flail so that respiration is almost impossible. When the diaphragm descends, the flail chest collapses and when the diaphragm ascends, the chest moves in the opposite direction.

A flail segment of chest wall may be treated by padding and taping or the use of sand bags to prevent paradoxical motion[3] (case 4) but crushed chest presents a different problem (case 5).

Case 4. A 41 year old white male was admitted to the hospital shortly after being involved in an automobile accident. He was found to have fractures of the second through the tenth ribs in the left mid-axillary line and fractures from the second to the fifth ribs in the anterior axillary line on the left. There were also fractures of the second to the eighth ribs on the right side. Aside from his other injuries, this patient demonstrated paradoxical motion in the left anterior superior portion of the chest. This was treated by sand bagging the local area. The patient made a satisfactory recovery and was discharged from the hospital three weeks later with his chest in good condition.

This case demonstrates the method of using sand bags to splint a flail portion of the chest.

Case 5. A 74 year old white male was brought to the emergency operating room by ambulance after being found lying in the street, apparently run over by an automobile. He was in profound shock and was markedly cyanotic. He was gasping for breath. He could not speak and was only semiconscious. Systolic blood pressure was 60. Respirations were more than 40 per minute and were short and gasping. There were multiple lacerations and contusions over the head, face, trunk and pelvis. There were marked bilateral paroxysmal respirations. The chest would sink in on inspiration and bulge out on expiration. The right sternoclavicular joint was completely avulsed. There were breath sounds on the left but breath sounds could not be heard on the right side. Subcutaneous emphysema was palpable. The heart was beating faintly and regularly. There was a crepitant sound with each beat as though there might be pneumopericardium. The abdomen was soft. There were other more minor injuries to the extremities. Nasal oxygen was started immediately. The patient was given Dextran and 5 per cent glucose in saline solution intravenously, while blood was being prepared. As soon as blood was available, it was started. Two towel clips were placed around the ribs anteriorly in the mid chest on either side for a total of four towel clips. As soon as outward traction was applied to these manually, the patient began to get better. This traction was maintined by two assistants while an under-water seal catheter was inserted between the 6th and 7th ribs on the right side in the anterior axillary line. The patient became better rapidly and began to breathe in a more normal fashion. The cyanosis eventually disappeared. The patient was taken to the ward with the traction being maintained manually. The towel clips were then attached to cords going up over pulleys and four pounds of weight attached to each of the four towel clips over the pulleys. The under-water seal drainage tube functioned properly and the patient was in markedly improved condition. He was given a second unit of blood when he reached the ward. After this, glucose and water were given intravenously. The blood pressure ran between 120 and 110 systolic and pulse was between 80 and 84. During the next hospital day he was given Dihydrocillin b.i.d.; tetanus antitoxin had been given previously. Blood pressure remained between 130 and 110 systolic. Urine output was satisfactory. The patient complained some of pain in the chest, but in general appeared to be fairly comfortable. During the second day the blood pressure remained stable, between 140 and 150. Pulse was around 100. Two towel clips worked loose on the third day and they were re-inserted. The patient was doing well at 9:00 o'clock that evening but at midnight he suddenly expired.

An emergency x-ray on the first night had shown multiple fractured ribs from the second to the eleventh on the right and fourth through the eleventh on the left.

The autopsy showed the fractures of the rib cage more extensively than on x-ray. Many ribs were broken in two, three or four places. All ribs seemed to be involved. The right sternoclavicular joint was completely free, as previously mentioned. There was a moderate hemothorax and a complete pneumothorax on the right with the entire lung being atelectatic. The thoracostomy tube had been unsuccessful in reestablishing the normal position of the lung and drainage of the blood clots from the chest. There was also a fracture dislocation of the symphysis pubis and moderate retroperitoneal hematoma. The left lung showed considerable emphysema.

This case demonstrates the management of a massive crushed chest situation with pneumothorax and hemothorax on one side. Possibly the patient should have had two chest tubes, one in the anterior second interspace on the right and one low across the diaphragm, and probably should have been irrigated with Varidase solution. Another choice in this case would have been to do an open thoracotomy with evacuation of clots and fixation of the ribs posteriorly with interosseous wiring as suggested by Sweet. In view of the fact that this man was a 74 year old "derelict," the latter form of treatment would seem rather radical. However, the patient died with the treatment he did get, even though he responded well to it initially. A more recent development in the treatment of such situations is the use of positive pressure endotracheal insufflation.

Laceration of the lung or major bronchi may occur secondary to fractured ribs if a spicule pierces the visceral pleura. Pneumothorax or tension pneumothorax results from this. A concomitant hemothorax of varying degree may exist not only from bleeding lung parenchyma, but from ruptured intercostal vessels or, more rarely, an injury to one of the major thoracic vessels.

Pneumonthorax is best treated by the introduction of a large rubber catheter through the second intercostal space anteriorly and attaching this to under-water seal drainage until the lung is reexpanded and the air leak is sealed off.

Case 6. This 56 year old white man was admitted to the hospital, having just been involved in an automobile accident. He was found to have fractures from the 3rd to the 6th ribs in the left mid-axillary line and fractures of the 4th and 5th ribs in the left paravertebral line. There was mild subcutaneous emphysema noted in association with this, but no injury to underlying lung tissue could be determined on the first x-ray. Evidence of pneumothorax was noted on portable x-ray made two days later. This was associated with a left atelectasis and retraction of the mediastinal structures to the left. The lower two thirds of the chest were obscured. The right lung field remained clear. It was necessary to use intratracheal suction on the patient frequently because he was not cerebrating properly and it was quite difficult to encourage him to cough. Inability to cooperate made suction necessary. He was kept on antibiotic drugs during this time and a thoracostomy tube was placed in the second intercostal space anteriorly on the left side. The patient responded to this treatment and was discharged two and one-half weeks later in a much improved condition. The lung was completely reexpanded and the pneumonitis subsided.

This case demonstrates that a pneumothorax may not appear on the first x-ray but then may show up subsequently. It also shows how endotracheal suction must be used on a patient who is not able to cooperate. A nice response to thoracostomy tube drainage in an effort to reexpand the lung was obtained.

If hemothorax coexists, a second thoracotomy tube should be introduced between the 7th and 8th ribs in the mid-axillary line and allowed to rest on the diaphragm.

Occasionally, a hemothorax may be so clotted that it will not drain properly. One might make use of Varidase by injecting it through the tubing to help liquify the clots. More frequently, however, open thoracotomy will be necessary to evacuate the clots. If this is not done, a more difficult pulmonary decortication will be necessary at a later date.

Whenever the lower ribs are fractured, one should suspect injury to the spleen or liver.

Case 7. This 27 year old white female had been injured severely in an automobile accident three days before and was transported from another hospital. Aside from other injuries, there were multiple rib fractures on the left, involving the 6th, 7th, 8th and 9th ribs. The patient's abdomen was slightly distended. Initial blood count showed 9 grams of hemoglobin and 3.1. million red blood cells and 24,600 white blood cells. She was given two units of blood over a period of two days. The patient was closely observed because the possibility of subcapsular hemorrhage from the spleen was kept in mind.

On the fourth hospital day an exploratory laparotomy was done and the abdomen was found to contain about 1,500 cc. of dark blood. The spleen showed stellate lacerations with subcapsular hemorrhage. Splenectomy was done and the patient made an uneventful recovery.

Case 8. A 37 year old white male was brought to the hospital by ambulance about 20 minutes after having been injured in a head-on collision. He was pale and hypotensive. He complained of pain in the right lower chest and said that he was dying. Oxygen was given and a cut-down was done for transfusion. A single x-ray revealed fractures through the 7th, 8th, 9th and 10th ribs posteriorly on the right. The patient expired within another 30 minutes.

Autopsy revealed the abdominal cavity to be filled with blood. The right lobe of the liver was broken in two, with the smaller fragment lying free in the abdomen. The rib fractures corresponded in position to the line of fracture through the liver.

Subcutaneous emphysema may occur with or without pneumothorax if ribs are fractured. The treatment of this condition should be conservative.

Damage to underlying thoracic visera may occur even in the absence of laceration by a spicule of broken rib; in fact, it may occur without the existence of any rib injury. This was demonstrated in war time blast injuries secondary to air and water concussion. Any time the thoracic cage is forcibly compressed against a closed glottis, there is a good chance for the rupture of alveoli to take place. This causes interstitial edema and hemorrhage within the lung manifested by hemoptysis, pleuritic pain and secondary pneumonitis. The x-ray picture may be confused with pneumonia and other conditions.

Case 9. A 24 year old white male was admitted to the hospital with moderate cerebral concussion and lacerations of scalp and loss of tissue of forehead. X-rays showed fractures of 1st, 2nd, 5th, 6th and 7th ribs on the left side. No pneumothorax or emphysema were noted. There was pleural thickening of the lower portion of the left chest as well as the apical area and apparently a small amount of fluid in the left chest. In fact, a thoracentesis was done in the left lower chest for fear that some degree of hemothorax might be present. Thoracentesis revealed no fluid, however, and the patient responded well to the usual treatment of encouragement to cough while under the effect of analgesic and antibiotic drugs and bed rest. He was discharged on the tenth hospital day in good condition. X-ray two days before discharge showed considerable clearing of the reaction in the left chest.

Cardiac contusion may occur secondary to compression of the anterior chest by the steering-wheel. The clinical picture and even electrocardiographic findings may be similar to those of a myocardial infarction. The treatment is also similar. Rarely actual rupture of the heart occurs.

Rupture of the diaphragm or traumatic diaphragmatic hernia[5] is an injury which is actually the result of compression of the abdomen rather than the thorax. The majority of these hernias are found in the left side. Only 5 per cent are found on the right because of the buttressing action of the liver. The abdominal viscera must be reduced and the rent in the diaphragm closed. This can be accomplished through either a thoracic or abdominal approach.

Case 10. This 45 year old white male was admitted to the hospital as an emergency a short while after having been injured in an accident. He was riding as a passenger in a pick-up truck which was struck as it entered an intersection by a large tractor-trailer truck heavily loaded, going at allegedly high speed. When he was seen at the hospital, he had grunting respiration, a weak pulse, and complained bitterly of pain in the chest. There were palpable rib fractures all along the left side of the chest, posteriorly. No breath sounds could be heard on the left side. During the examination the patient became so ill that he was rushed to the operating room without x-rays and a catheter was placed in the second intercostal space on the left, anteriorly, and attached to under-water suction. He was given positive pressure oxygen and his condition began to improve. Later in the day a chest x-ray was made which showed considerable opacity over the left chest, with multiple fractured ribs. That night intravenous pyelography was done to rule out a ruptured kidney. Gross blood had been noted in the urine. Intravenous pyelography showed a slight extravasation beneath the capsule, but the kidney was grossly intact; there was no bladder extravasation.

A needle type paracentesis was done in the left upper quadrant of the abdomen and was negative for blood or other fluid. The patient's condition stabilized and a few days later a repeat x-ray showed what was interpreted as a marked hematopneumothorax on the left. A new chest tube was inserted in the second intercostal space and an additional one was inserted in the sixth intercostal space, laterally. A large amount of plasma and old blood was obtained on the sixth day after admission. On the eighth day, breath sounds were noted to be still absent over the left chest, and x-ray confirmed the clinical opinion that the stomach was in the chest (fig. 1). The patient's general condition had improved so that he could be scheduled for an elective repair of this crushing chest injury with ruptured diaphragm.

At operation on the eleventh post-injury day, a left posterolateral thoracotomy was done through the bed of the 8th rib which was resected subperiosteally. It was noted that this rib was fractured in two places when it was exposed. Evidence of the other multiple rib fractures was present, manifested by hematoma, ecchymosis and other soft tissue changes. The entire left chest wall was unstable. The chest was entered and it was found that the stomach was well up into the chest and covered with fibrinous exudate. The left lung was collapsed completely and covered with an early fibrous "peel." The spleen also had been pulverized by the blow and was lying partly in the chest through the rent in the diaphragm and partly still in the normal splenic bed, surrounded by much clotted blood. The diaphragm had a large rent in its anterolateral portion; this was opened further so that the spleen could be cleanly removed. The stomach was reduced into the abdominal cavity after it had been deflated by means of a trochar and purse-string suture. It was quite difficult to repair the diaphragm because part of the muscular portion had actually been destroyed; however, a plastic type repair was done so that the diaphragm was made completely intact between the chest and abdominal cavity, finally. Then the problem of the collapsed lung was attacked. It was necessary to do a complete pulmonary decortication and remove this "chicken fat" material from the visceral surface of the lung. After this was done, the lung reexpanded in a normal fashion. The chest was closed with anterior and posterior intercostal catheters brought out under water. The patient tolerated this procedure well and returned to the ward in good condition.

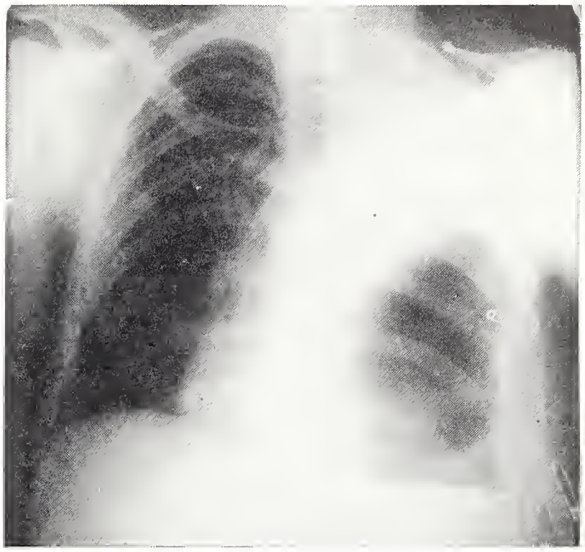

Fig. 1. Case 10. Chest x-ray on the 8th day after injury suggesting gas filled viscera in the left chest with collapse of the left lung and marked shift of the mediastinum to the right.

The postoperative course was complicated by a tendency to atelectasis of the left lung so that bronchoscopy was required the first postoperative night and it was necessary to apply negative pressure to the intercostal catheters and also to make use of Varidase solution. However, the lung eventually healed in a completely expanded state and the chest wall became stable (fig. 2). The patient was discharged from the hospital 35 days after his injury which was 24 days after this major operative procedure. Since that time he has continued to do well.

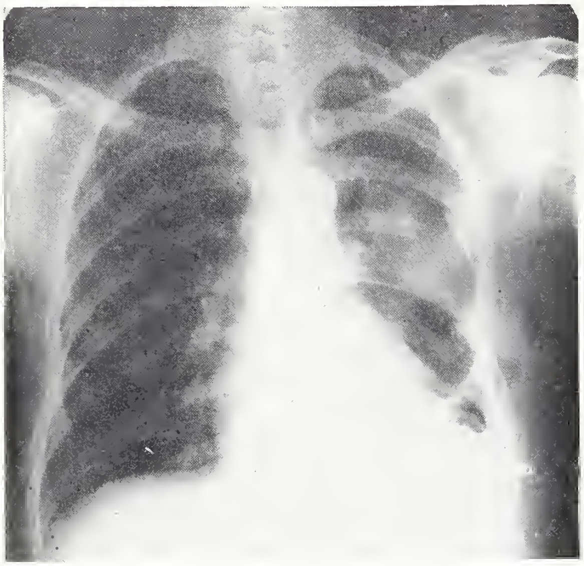

Fig. 2. Case 10. Satisfactory reexpansion of the left lung after repair of the traumatic diaphragmatic hernia and pulmonary decortication has been carried out. Some healing of the rib fractures has taken place so that the chest is now stable.

Case 11. This 44 year old white married prison guard was readmitted to the hospital on the evening of July 25, 1956, about 7:00 p.m., as an emergency. He had previously been involved in an automobile accident on March 13, 1956. He had first been taken to the hospital elsewhere and then transferred to the St. Francis Hospital in Cape Girardeau where a fracture of the mid-shaft of the left femur was treated with an intramedullary rod. Fractures of the left side of the chest were also treated conservatively. The patient had some pain in the left chest at that time and a portable x-ray of the chest revealed no definite evidence of injury to the diaphragm; however, there was this report: "The right chest is essentially clear; the left chest showed a suspicious area overlying the left leaf of the diaphragm which could warrant repeat examination for further clarification." The patient had some symptoms of indigestion so a cholecystogram was obtained during that hospitalization which showed a non-functioning gallbladder. The patient was discharged from the hospital on April 28, 1956, on crutches. He made a nice recovery.

The patient had returned to his work but on the day before this readmission he had begun to have pain in his chest. It became rather severe on the morning of admission, so his local doctor considered a coronary thrombosis. Later that afternoon he began to vomit bright red blood and a diagnosis of gastrointestinal hemorrhage, probably from gastric or duodenal ulcer, was arrived at. The patient was transported back to the hospital and examination on admission revealed a well developed, well nourished man who appeared to be in acute distress. His skin was pale, and there was cool sweat on his skin. His conjunctiva were pale as were the mucous membranes. Examination of the chest revealed that the right side had good breath sounds but that the breath sounds were markedly diminished on the left. The patient was retching constantly and attempting to vomit and occasionally brought up a small amount of dark and red blood mixed. The retching was the most marked symptom and also he showed evidence of weakness and air hunger. The abdomen was not distended or tender. An emergency chest x-ray revealed an air-filled structure in the left chest which was interpreted as stomach through a traumatic dia-

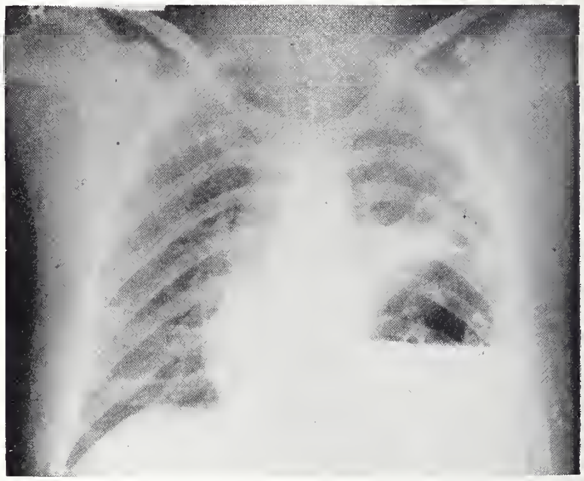

Fig. 3. Case 11. Chest x-ray made four months after the original injury showing gas and fluid filled viscus in left chest with partial atelectasis of left lung and shift of mediastinum to the right.

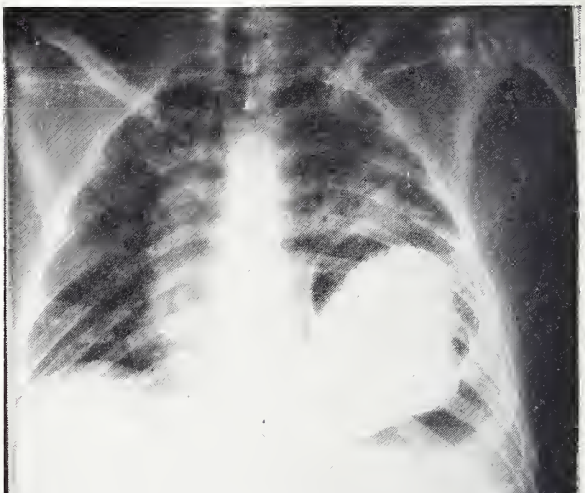

Fig. 4. Case 11. The diagnosis of traumatic diaphragmatic hernia was confirmed by an emergency barium swallow.

phragmatic hernia (fig. 3). A barium swallow confirmed this diagnosis (fig. 4). The patient was typed and blood transfusions were started and he was taken to the operating room where a left posterolateral thoracotomy was carried out through the bed of the 8th rib. The stomach was found to be lying in the left thoracic cavity and was distended with blood and air. Most of the omentum was also up in the chest, as was a small portion of the duodenum. The left lung was entirely atelectatic except for a small portion of the upper lobe. The rent in the diaphragm through which the stomach and other abdominal contents protruded was approximately 6 by 3 cm. in size and was in the anterolateral position. There was slight adherence of the omentum to the edge of this rent in several places. The diaphragm was opened wide in an anterior and lateral direction, and the stomach and omentum were reduced in the abdominal cavity. The abdominal viscera were palpated and found to be otherwise normal except for a contracted gallbladder full of stones. A Levin tube was placed down the esophagus and this was used to further aspirate the gastric contents. Then an attempt was made to fully inflate the atelectatic lung and this was difficult in the lower lobe, especially in the posterior and lateral basal segments. Finally all segments were completely expanded and the thoracic cavity was irrigated. The chest was closed in the usual manner and one underwater sealed drainage tube was used. The patient made an uneventful recovery and has remained well since operation. Barium studies postoperatively showed the stomach to be in normal position (fig. 5).

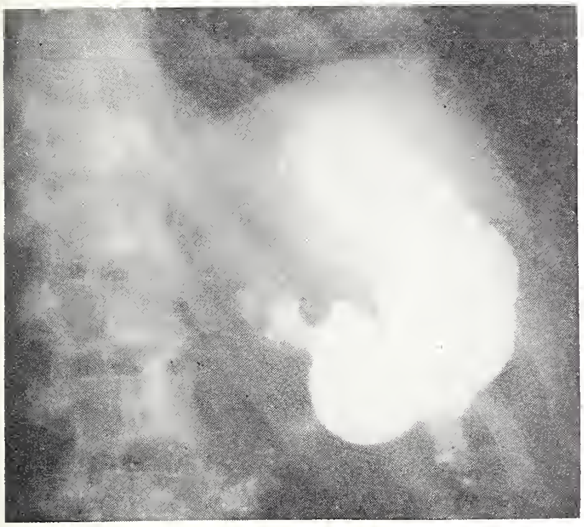

Fig. 5. Case 11. Upper GI series one week postoperatively revealed this normal position of the stomach. (Oblique view.)

It is quite interesting that major symptoms of diaphragmatic hernia did not appear in this case until four months after the original trauma. In reviewing the literature on this subject, however, this delayed appearance of symptoms is quite common.

Since treating this case, it has become our practice to obtain a GI series on all major chest or abdominal injuries prior to their release from the hospital.

Mediastinal emphysema may occur as the result of the progression of interstitial rupture of alveoli or rupture of the trachea or major bronchus. The return flow of blood to the heart may be cut off by this process if it becomes extremely severe. Usually, mediastinal emphysema is treated conservatively but occasionally it may be necessary to insert a water seal drainage tube behind the sternum into the mediastinum.

Gunshot and stab wounds of the chest are common in war time but relatively rare in a civilian community. It is important to determine whether pneumothorax or hemothorax exists and institute the proper treatment. In penetrating injuries to the lower thorax, injury to abdominal viscera must be watched for. A thoraco-abdominal incision may be necessary, especially on the right, because concomitant injury to lung, diaphragm, liver, kidney and small bowel may occur.[3]

"Traumatic wet lung syndrome" is a term first used by American military surgeons in Europe during World War II to designate cases of chest injury of varying degree which were complicated by secondary pneumonitis and atelectasis due to improper clearing of the bronchial tree. These surgeons soon discovered that constant vigilance with frequent intratracheal catheter suctioning, bronchoscopy and skillfully done intercostal blocks would work wonders in clearing up these otherwise baffling cases. This syndrome is also found associated with civilian accidents and still responds well to the therapy mentioned. Tracheotomy is sometimes life-saving.[7]

Once again, it should be emphasized that taping or use of constrictive dressings on the chest are to be deplored. If mild analgesic drugs do not keep the patient reasonably comfortable, then intercostal blocks should be done at intervals. The patient must be encouraged to cough in spite of discomfort.

SUMMARY

1. A classification of chest injuries is outlined.
2. Therapeutic principles are listed.
3. Clinical material is presented to illustrate management of chest injuries on the surgical service of a community hospital.

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Neoplasm of the Small Intestine

Presentation of a Case and Review of the Literature

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GASTROINTESTINAL complaints are the common currency of medical practice today. In this stomach-centered culture, the gastrointestinal tract is the prime sounding board of the emotions. As it turns out, most of these symptoms prove to have no serious organic import. This fact lulls many into a sense of false security about the prognosis. In the case presented and many reviewed from the literature the diagnosis of small bowel malignancy was not entertained preoperatively. As a matter of fact, malignant tumor of the small intestine is rarely thought of in patients with gastrointestinal complaints or melena. This seems to be a common error.

CASE REPORT

Mrs. I. C., a 64 year old white housewife, was seen by many physicians prior to her last hospital admission. She was admitted October 29, 1956, to Southeast Missouri Hospital with the chief complaint of chronic nonproductive and increasingly severe cough which had persisted for almost two months. The patient had also noted episodes of dizziness, weakness and fatigue. She stated that about three years prior to admission she had had a tentative diagnosis of pancreatitis and was taking Probanthine and following a special diet.

Her past history indicated that she had had little difficulty until September 1953 when she was in Southeast Missouri Hospital for epigastric lancinating pain radiating through to the back. At that time a careful work-up revealed her blood pressure to be 185/105. She exhibited a grade one apical systolic murmur and there was tenderness to deep palpation in the epigastrium. Routine laboratory work was entirely normal, two determinations of serum amylase were not diagnostic, but both were slightly elevated. IVP's, GI and GB radiographs were interpreted as within normal limits. Colon examination by means of the x-ray was reported to be "questionable," that is, the radiologist felt that there might be an extrinsic mass in the sigmoid, and a repeat examination was ordered but nothing definite was found. The patient had relief of her symptoms with diet and a provisional diagnosis of chronic pancreatitis was made. The use of antispasmodics was later instituted.

She progressed relatively well and had symptomatic treatment for arthritis in February 1954. By April 1955 she was seen again for complaints of recurrent epigastric pain and fatty food intolerance. At that time she also had cramping, vomiting and diarrhea.

She was readmitted to the hospital in June 1955. Repeat colon films were done and the impression of an extrinsic lesion in the mid-sigmoid was again considered. She also had repeat GI and GB films and a hemorrhoidectomy was performed. During this time the patient was seen by an ear, nose and throat consultant for chronic sinusitis and had occasional treatments for this.

From this point on she began an insidious downhill course.

The family history revealed that she had a sister who had died of cancer of the uterus, a sister who had tuberculosis of the bone and her mother had hypertension and suffered from heart disease.

Examination on admission October 29, 1956, revealed a pasty, pallid appearing white female who demonstrated mild epigastric tenderness to deep palpation. The liver was down 2 centimeters below the right costal margin. It was slightly tender. She exhibited a nonproductive, paroxysmal cough. Laboratory examination revealed normal serum amylase and a normal urine. The hemoglobin was 6.0 grams; the red cell count was 3.26 million; the white cell count was 13,500 with a normal differential. Cell indices showed a normocytic hypochromic anemia which was considered to be due to chronic blood loss. Stool was strongly positive on the guaiac and benzedine tests. A repeat upper GI series showed abnormality of the mucosal pattern of the jejunum, but no actual filling defect. The chest film was normal. IVP's were again normal. The colon showed irregularity of the mid-sigmoid and this was again considered to be suggestive of an extrinsic lesion as previously noted. Also, a small polyp of the distal sigmoid was noted. Sigmoidoscopic examination showed normal mucosa up to 15 centimeters, but the scope could not be passed above this point due to an apparent constriction extrinsically. After transfusion of four units of whole blood the hemoglobin was 13.15 grams. She was prepared for bowel surgery with sulfasuxadine and on November 14, 1956, an exploratory laparotomy was performed. At operation an area of the sigmoid and left ovary were found adherent to each other. The left ovary with a segment of the sigmoid was excised removing with it the polyp previously noted. This was found to have malignant changes in its stalk on permanent sections. End-to-end anastomosis of the sigmoid was performed. The liver was found to have a metastatic lesion which proved to be adenocarcinoma on frozen section. The primary lesion was found in the small intestine, somewhere in the region of the junction of the ileum and jejunum. A sixteen inch segment of small bowel with its mesentery and nodes was removed and end-to-end anastomosis restored the continuity of the bowel. A metastatic implant was found in the omentum. However, eight nodes in the ileal resection were negative for cancer. The post operative course was smooth and the patient was discharged November 25, 1956.

She subsequently followed a slow downhill course. Her cough persisted and became unbearable. She became anoretic, bedfast and reentered the hospital for the last time March 29, 1957. Blood count then was 14.8 grams of hemoglobin, red cell count of 5.33 million, white cell count of 30,250 with a normal differential. She developed ascites, marked peripheral edema and was maintained in a semicomatose state on parenteral fluids. She expired quietly May 9, 1957.

Autopsy was performed. The final pathologic diagnosis was: (1) generalized peritoneal carcinomatosis from adenocarcinoma of the jejunum; (2) metastasis of liver, spleen and both lungs.

The small intestine occupies 75 per cent of the entire digestive tract and extends from the pyloric ring to the ileocecal valve. It is composed of the duodenum, jejunum and ileum. Considering this amazing area of vulnerability, cancer of the small bowel is astonishingly rare. Indeed, most good reports state that only 3 to 5 per cent of malignant tumors of the gastrointestinal tract are located in the small intestine. Of these neoplasms, the most common is adenocarcinoma.

There is no satisfactory explanation for the low incidence of malignant tumors of the small bowel. Of course, the reported incidence varies depending on whether the tumors are recognized clinically or at necropsy. It has been suggested that the fluid content of the small bowel aids in preventing growth of such tumors due to minimal stasis. Alkalinity also may play a large role. A number of malignant tumors arise from preexisting benign ones. It is well known that polyposis, as in other segments of the gastrointestinal tract, is definitely precancerous. Instances of more than one case of carcinoma of the small intestine in members of the same family have been reported. This may be explained by preexisting polyposis.

Both benign and malignant tumors of the small bowel seem to occur with equal frequency in males and females. Also, there is a wide range in age incidence and no preponderance at any given decade of life. Ogilvie reported 21 cases of small bowel tumors and the ages ranged from 5 to 82. The 5 year old patient was a case of lymphosarcoma who died within a few months of recognition of the tumor.

Tumors can arise from any of the tissues normally present within the small bowel, but rarely arise in aberrant pancreatic tissue or within a Meckel's diverticulum.

Adenocarcinoma is the commonest type of malignant tumor of the small bowel and the most frequent sites of these are the duodenum and upper part of the jejunum. In a series of 228 cases reported by Hoffman and Pack, 104 were situated in the duodenum. Carcinomata usually arise within the first two feet of the duodeno-jejunal flexure and are more uncommon in the ileum. However, the Mayo Clinic in 1940 reported 31 tumors in the jejunum and 21 in the ileum. In the jejunum the growth is usually of the stenosing annular form, but it may be proliferative or form an ulcer or be a mixture of these varieties. Metastases are often wide spread, while the primary growth remains small.

The symptoms are similar for both benign and malignant tumors of the jejuno-ileum. They are not pathognomonic and may be simulated by those due to many other conditions. The following symptoms and signs have been reported:

1. *Bleeding.*—This symptom occurred in 42.1 per cent of the cases of patients having benign tumors in one large series. It was most common in the leiomyoma group. Occasionally the hemorrhage may be massive. Carcinoids rarely bleed. The subserosal tumors tend to grow to large dimensions; liquefaction necrosis may result and be followed by hemorrhage. Hemorrhages also occur in cavernous hemangioma, adenocarcinoma and lymphosarcoma. Bleeding results in secondary anemia as demonstrated in the case presented. Rarely, however, is hemorrhage the direct cause of death in patients with malignancies of the small bowel.

2. *Obstruction.*—Symptoms of small bowel obstruction are intermittent pain, nausea, occasional vomiting, peristaltic rushes and borborygmi. As the obstruction becomes complete, the distention becomes marked and vomiting, at times fecal, becomes persistent. In the series reported, obstructive symptoms occurred in 36.8 per cent of the patients with benign tumors and in 75 per cent of those with malignant tumors. Intussusception is a fairly frequent complication of small bowel tumors; it is much more common in benign than in malignant tumors. The development of intussusception depends on the location of the tumor and on whether or not it is polypoid or pedunculated in character. Submucous lipomas, pedunculated leiomyomas and polyps are most prone to intussusception. Usually this condition is sudden and painful, but in some cases mild recurrent symptoms only may be present.

3. *Local Irritation.*—Milder symptoms of intestinal irritation may be present and suggest peptic ulcer, indigestion or constipation. Such vague symptomatology often may be found in the adenomatous tumors. Intermittent episodes of small bowel obstruction, associated with pain, diarrhea and weight loss, are frequently observed in carcinoids. Carcinoids that have already produced metastases often cause symptoms.

4. *Weight Loss.*—This is not striking in patients having benign tumors, but in the group with malignant lesions it is the most constant symptom. A weight loss, ranging from 8 to 30 pounds in six to eight months, occurred in all 14 of the patients with malignant tumors in the series of Olson and his coworkers.

5. *Palpable Mass.*—In patients with benign tumors, a palpable mass was seldom noted except when an intussusception was present. On the other hand, Cameron reported that out of the series of 200 patients he collected having primary malignant disease of the jejunum and ileum, in 65 per

cent of those with carcinomas a palpable mass was present.

The examination of the patient with a tumor of the small bowel usually reveals little of significance. A plain x-ray film of the abdomen without the use of barium may aid in the diagnosis by revealing a gas-filled loop or loops of bowel or fluid levels in the intestine when it has been exposed with the patient in the erect and lateral position, but it does not reveal the nature of the obstructing lesion.

If an obstruction is suspected it is considered unwise to employ a barium swallow unless an intestinal tube is in place so that the barium can be withdrawn if it is unable to pass the point of obstruction. If a scout film reveals no gas-filled intestine or fluid levels, a barium swallow may be used which may demonstrate some dilatation of the intestinal loops above the tumor. Retention of the barium in the small bowel for a period of more than eight hours is suggestive of a lesion. Occasionally a translucent subtraction defect of the intestinal silhouette may indicate the presence of a tumor. This is most likely to occur if the barium is injected through a Miller-Abbott tube which has been passed down to the area of partial obstruction. A tumor situated in the lower ileum near the ileocecal valve can often be demonstrated by giving a barium enema before exposing the x-ray film.

The diagnosis is usually not made, however, until operation is performed.

The only laboratory examination of any value in patients suspected of having a tumor of the small bowel other than the routine blood count are the tests of the stool for occult blood.

Any lesion of the intestine which gives signs suggesting small bowel obstruction may exactly simulate a tumor. A duodenal ulcer is the most common such lesion. The diverticula, a Meckel's diverticulum complications from an appendicitis, and regional ileitis may all simulate small bowel tumor. Other lesions in close proximity to the duodenum may cause defects in the bowel wall and thus an erroneous diagnosis of primary duodenal neoplasm may be made. These lesions include cysts and tumors of the pancreas, carcinoma of the hepatic flexure and metastatic lesions of the retroperitoneal lymph nodes. Specific infections such as tuberculosis should be ruled out. Tuberculosis, however, is most prominent in the region of the ileum and invariably there is roentgenologic evidence of pulmonary disease. Cicatrizing enteritis occurs in young males and often shows multiple lesions and typical roentgenologic signs. Various intestinal anomalies and infections may be the cause of bleeding. Eosinophilic granuloma may rarely develop in the small intestine. Coincidence of large bowel carcinoma, as in the case presented, has been reported.

Secondary invasion of the small bowel by carcinomas arising in other organs is particularly frequent. Metastases from adjacent organs or even from breast and bronchus can buckle the serosal surface, invade the wall and ulcerate the mucosa. Primary melanocarcinomas of the small bowel do not occur for melanoblasts are not present.

If a small bowel tumor is diagnosed from the clinical history, physical findings and the roentgenologic examination, an exploratory laparotomy should be done. Before exploration, however, if there has been any degree of obstruction, the electrolyte balance should be restored by appropriate measures and, if there has been any degree of bleeding, transfusions should be given. At operation the sign of benignancy of a neoplasm is its sharp circumscription or the presence of a long, soft pedicle. Even in the presence of liver metastases, extensive surgical procedures are justified. If the tumor is malignant or if there is any question of neoplastic change, then a radical rather than a conservative operation should be done with removal of the accompanying mesentery and draining lymph node areas.

If a benign tumor of the small bowel is completely resected, the prognosis is excellent. There have been some seven-year survivals of patients from whom a carcinoma of the jejuno-ileum has been removed, but the recurrence rate has generally been exceedingly high. In one case reported by Strohl, the secondary removal of a recurring carcinoma has produced an added survival period of three years.

Patients with sarcomas have had a poor prognosis with an average survival period following removal of the lesion of about seventeen months.

Patients with carcinoids have the best prognosis of any of the group having malignant tumors both in regard to curability and the length of survival when metastases or recurrent lesions are present.

SUMMARY

Report of one case of adenocarcinoma of the jejunum found only after exploratory laparotomy is presented. The literature of small bowel cancer has been reviewed with special emphasis regarding the diagnosis, prognosis and treatment.

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Perinatal Mortality and Fetal Distress

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THE PARAMOUNT concern of obstetricians has been, and rightly should be, the welfare of the mother. However, in recent years there has been a marked increase of interest in fetal outcome and in the manifestations of intrauterine fetal distress. Although the number of infants lost in the perinatal period is small, with the prevention of prematurity and improvement of neonatal care, these infants will loom larger in fetal death statistics as time goes on. The purpose of this paper is to present the trend of thinking after analysis by several groups who have studied their perinatal mortality with particular regard to the validity of the usual signs of fetal distress and an increased salvage by a prompt delivery. Studies of this problem are limited to the prenatal period involving infants of 36 weeks or more gestation and weighing 2.500 grams or more, and including the first week of infant life.

FACTORS IN FETAL DISTRESS AND FETAL DEATH DURING LABOR

Cord complications have been noted as a cause of fetal death by many authors.[1, 2] The most common cord complications are: loops of cord about the neck; loops about other parts of the body; prolapse of the cord; prolapse (occult); vasa previa.

Post-maturity is usually defined as delivery after the 42nd week. In one series[3] it was reported as a factor in one third of infants dying during labor.

Desultory and prolonged labor with or without intrapartum infection decreased in recent years by the use of intravenous Pitocin and more frequent cesarian section. Other factors are premature separation of the placenta; abnormal presentations; driving labor, frequently complicating one of the other causes; congenitally defective infants; placenta praevia; low lying placenta; rupture of uterus.

There are occasions when no demonstrable cause of fetal death, even by autopsy, can be discovered.

SIGNS OF FETAL DISTRESS

The rate and rhythm of the fetal heart are the only signs of the infant's status that can be observed directly. The normal heart rate varies between 120 and 160 beats per minute, with a transient slowing during contraction and a complete recovery during the intervening interval. When these limits are exceeded, it may indicate the earliest sign of fetal distress. Almost all authors agree as to the grave prognostic significance of a slow fetal heart rate. On the other hand, a rise in the rate has been subject to much controversy. It is considered important to some authors[4] and minimized by others.[5, 6, 7] Fluctuation in the fetal heart rate is thought to be important by Beck[8] and by King.[6]

The significance of meconium staining is moot. Walker, in the *British Medical Journal,* states flatly that marked hypoxia is necessary to produce this stain in the amniotic fluid, but controversial statements concerning the actual clinical significance of this sign have been made by a great number of men in this country. The concensus is that meconium staining does not indicate severe distress unless it is accompanied by abnormalities in the fetal heart rate.

Other signs which have been mentioned in the literature but only briefly, are muffling of the fetal heart tones, tumultuous fetal movements and a funic (cord) souffle. King[6] feels that slowing and irregularity of the fetal heart which persists into the interval between contractions is a sign of cord around the neck with compression. Lund[5] feels that a therapeutic response of the fetal heart to oxygen administered to the mother is suggestive of intermittent pressure on the cord.

MANAGEMENT OF FETAL DISTRESS

When fetal distress is found, the course of action will vary depending upon the other conditions present, such as dilatation and firmness of the cervix, nature of contractions, station of present-

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ing part, parity. A vaginal examination should be done to determine any obvious cause for the fetal distress, as well as cervical dilatation, station and position of the presenting part. If the membranes are intact, they may be ruptured to confirm the presence of fetal distress as shown by the passage of meconium and also to determine the presence or absence of an occult cord prolapse. It is well to be sure at this time that there are no vessels cruising through the membranes as are found in vasa previa.

If excessive bleeding is present, an x-ray may be helpful in differentiating between an abruptio placenta and a placenta praevia and, in my opinion, should always be done (time permitting); that is, the degree of fetal distress may be such that time should not be taken for x-ray but the patient should be delivered immediately.

The value of oxygen therapy has been verified by many investigators on the basis that even a slight increase in maternal oxygen saturation raises the gradient of exchange with the relatively unsaturated fetal blood resulting in better fetal oxygenation, especially if blocking of the fetal circulation is only intermittent or partial.

When conditions are such that delivery can be accomplished rapidly by the vaginal route, this usually is the procedure of choice, the anesthetic of choice being pudendal nerve bloc. If the patient is not deliverable, per vagina, and the signs of fetal distress are definite, irreversible and are progressing, labor must be terminated by cesarian section. There is considerable controversy in the literature as to the anesthetic of choice in this situation. During the last 10 or 15 years, cesarian section has been performed with increasing frequency to prevent fetal loss in labor and it is now perhaps as common an indication for section as is cephalopelvic disproportion.

Following is an analysis made of the perinatal deaths in one of the Cape Girardeau hospitals during the four year period from January 1, 1953, to January 1, 1957. During this time there were 3,088 total deliveries. This study excludes infants born before 36 weeks of gestation and prematurity was not a factor. There were 24 cases of perinatal death during this four year period.

SUMMARY OF CAUSES OF NEONATAL DEATHS

Congenital anomalies incompatible with life comprise the largest group in this series, there being seven such cases. There were four cases involving cord complications. Thus, out of the 24 cases analyzed, almost half were due to either congenital anomalies or cord complications. Other causes of fetal death were as follows: abruptio placenta, four; driving labor was a factor in four cases (in one case the labor had been induced); polyhydramnios, two; blighted twin, two; abnormal presentation, one; pre-eclampsia, one; and there were three in which the cause of death was entirely unknown.

An analysis of the time of fetal death and whether the fetal death was anticipated or known, is as follows:

Fetal death definitely established before labor, six cases.

Death during labor and known to obstetrician, two cases.

Death during labor or immediately afterward and anticipated by known fetal distress, four cases.

Totally unexpected stillborn infants, six cases.

Deaths occurring more than one hour after delivery, six cases.

In this series, age, parity, post-maturity and history of previous obstetric complications were not important factors. A glance at the 10 cases presented in summary form in the two tables would seem to indicate that in a majority of these cases fetal heart determinations were not taken soon enough or often enough and that perhaps some of these babies might have been salvaged had the fetal distress been discovered sooner. This conclusion may be grossly in error as there may have been fetal heart determinations which were not recorded on the chart. In the one case in which Pitocin induction was used, it is doubtful if this was a factor; however, the use of quinine for induction has been shown to be detrimental and may be a factor in this case. In the one case in which fetal determinations were adequate, the loss of the baby was due to abrupto.

SUMMARY

Fetal distress does occur during labor and is most often manifested by fetal heart changes, particularly slowing and irregularity. Many of these infants, otherwise salvagable, will die during labor unless specific measures are taken to save them. Of the infants which are salvagable, cord complications seem to be the most common cause of fetal distress. Fetal distress is most likely to develop in labor when the following factors are present: high presenting part; abnormal bleeding; polyhydramnios; driving labor; desultory and prolonged labor; and abnormal presentations. Postmaturity is listed as a factor by most authorities but was not found to be present in this small series.

When signs of fetal distress are marked or persistent, and do not respond completely to maternal oxygenation, prompt delivery must be effected. Quite often, cesarean section is the procedure of choice. I think it is safe to assume that the small size of this series of cases is in large part due to the more frequent and judicious use of cesarean section and intravenous Pitocin induction.

The analysis of cases presented in this paper is not meant to be critical of the obstetric practice in

TABLE 1

ANALYSIS OF CASES IN WHICH FETAL DISTRESS WAS KNOWN PRIOR TO DELIVERY

Case No.	*O B Complications*	*Time first recorded fetal heart to delivery*	*Duration of known fetal distress to time of delivery*	*Method of Delivery*	*Comment*
1	Premature separation; driving labor	1 hr. 15 min.	20 min.	Vaginal	No fetal heart recorded for 55 minutes
2	Abruptio, gen'l peritonitis	1 hr. 30 min.	1 hr. 30 min.	Section	Patient obviously acutely ill at least 12 hrs. before delivery; no fetal heart recorded until 1½ hrs. before delivery
3	Abruptio placenta pre-eclampsia	12 hrs.	31 min.	Section	No x-ray for placental position; fetal heart indicated fetal distress too late to salvage the baby
4	Pre-eclampsia	1½ hrs; fetal heart not present	1½ hrs.	Vaginal	No record of fetal heart being taken for 22½ hours after admission

TABLE 2

ANALYSIS OF CASES OF UNANTICIPATED STILLBORN INFANTS

Case No.	*Obstetrical Complication*	*Record of fetal heart being taken*	*Cause of death*	*Possible causes and comment*
1	Breech	No	Unknown	Driving labor
2	Twins	Yes	Blighted twin	
3	Twins	Yes	Blighted twin	
4	None	No	Unknown	Driving 3-hour labor from 1-finger dilation to delivery
5	None	No	Knot in cord	Delivery 6 hrs. after admission
6	Physician described measurements as "close." X-ray pelvimetry described pelvis as "average."	No	Cord about neck	Delivery 36 hrs. after admission; 4 days past E D C. IV Pitocin induction (unsuccessful). Quinine and castor oil—driving labor

this area. As a matter of fact, the small number of cases over this four-year period is well in line with the mortality rates elsewhere. So much has been done in the last 10 years to lower the fetal mortality rate that we have reached the point where it is difficult to lower the mortality rate further. From the foregoing, it would appear that the mortality rate can be lowered by more frequent determinations of the fetal heart rate which at present is the only reliable indication of fetal distress. For improvement in this area, we must rely on nursing staffs. If they are lax in this particular, we must accept part of the blame for not insisting or at least stressing the importance of frequent fetal heart determinations.

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Problem of Hazardous Radiation

Review of Recent Literature

HAROLD B. RAPP, M.D., *Cape Girardeau*

Some of the problems of radiology are problems not only of that specialty field alone but of all men in the clinical practice of medicine who have x-ray machines or who request x-ray examinations on their patients. One problem is that of hazardous radiations, radiation delivered to the patient in a dosage which is unwarranted in the diagnostic examination. It has become important in the last three years that all physicians recognize these hazards. Why in the last three years? The answer lies simply in the production of increased amounts of artificial radioactivity as a part of the new "atomic age."

During the last fifteen years there have been many great advances in medicine and its practice, and some of these advances have certainly been on the basis of better diagnostic x-ray tests and the ability to establish a proper diagnosis leading to definite therapy. For years the radiologists and radiation physicists have been aware that radiation is not only beneficial from the diagnostic point of view and from the therapeutic aspect, but have noted that there are certain hazards which pertain to the exposure to radiation. All are aware that persons receiving radiation as a part of their occupational function or due to the misguided use of x-ray therapy have developed skin cancer in the exposed areas. Radium dial watch painters develop bone tumors and it is also known that the Schneeburg miners developed carcinoma of the lung. These are the somatic effects. Likewise, for at least twenty years it has been known that unexpected mutations occur in fruit flies and wheat germ when they are subjected to x- or gamma radiation. These mutations are the genetic effects.

The last three years have seen a marked increase in publicity related to these hazardous effects. This publicity originated primarily with the report of the genetics committee of the National Academy of Science published in the *New York Times* in 1956.[10] This Committee recommended, "that for the present it be accepted as a uniform national standard that x-ray installations (medical and nonmedical), power installations, disposal of radioactive wastes, experimental installations, testing of weapons, and all other humanly controllable substances of radiations be so restricted that members of our general population shall not receive from such sources an average of more than ten roentgens, in addition to background, of ionizing radiation as a total accumulated dose to the reproductive cells from conception to age 30." They also concluded with the recommendation, "that the general public of the United States be protected, by whatever controls may prove necessary," from receiving that dosage. At the present time it is estimated that the average individual in the United States up to age 30 has received 3 to 4 roentgens from medical x-ray examination. This quantity is roughly equivalent to the unavoidable and uncontrollable background dose from natural radioactive sources.

It then becomes obvious why, as a physician, I speak regarding the use of diagnostic x-ray; particularly, when a Committee of this type permits lay publication of undesirable publicity and recommends, "protection by whatever control may be necessary."

During the last two years, since the publication of this report, a wave of apprehension has passed through the lay public and also through scientific fields other than medicine in regard to these dangers of exposure. Apprehension and anxiety in some cases is appropriate; in others this feeling has reached rather hysterical proportions. With an increasing frequency patients in my office wish to know how much radiation they will receive with certain examinations. This question was essentially unheard ten years ago and now it occurs with rather frightening frequency. Some patients have gone sufficiently far as to refuse examination even though their physician had advised them that the examination was essential.

I wonder how reactive these same people will be to the publication in the Science Notes column of the *New York Times,* December 29, 1957, which refers to the British Journal, *Nature,* report on mutations as caused by the wearing of tight fitting clothing. That article quotes the report as follows: "Modes of dress chiefly based on sexual taboos might imply genetical hazards of 100 to 1000 times greater than those estimated from different sources of radiation." The report ends with a recommendation to change our type of clothing to kilts or the type of trousers worn in medieval Europe.

Briefly I present evidence for believing that radiation may be hazardous.

SOMATIC PROBLEM

Warren[1] in 1956 presented a statistical summary of the causes of death in physicians who had ex-

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posure to radiation, namely the radiologists, and those physicians who had no known radiation contact between the period 1930 to 1954. Radiologists in that survey had an average age of death at 60.5 years while the other physicians averaged 65.7 years at death. This, according to Warren, would indicate a shortening of life due to chronic whole body radiation; however, it has been shown by Lewis[2] that the age distribution of those radiologists and the physicians with whom they were compared was such that when taken into account the radiologists might have expected to live longer than the other physicians. This is supported with the same indication in the study of Dublin and Spiegelman[3] of 1948. More recently Failla,[4] by taking the Gompertz curves of aging in mice and applying them to man, extended the work of Lorenz[5] and concluded that the life shortening expected would be only 1.5 years if a total dose of 500 r had been received up to age 60 in a constant low dosage date. This would be a considerable quantity of radiation to an individual who had not had x-ray therapy. This of course implies whole body radiation at a constant rate while nothing is known about the effects of moderately large doses in short and broken intervals. However, since there is apparently some doubt as to the life shortening effects of low dosage radiation one certainly must take all precautions necessary to protect himself and his patients.

GENETIC PROBLEM

This problem is uppermost in the minds of the lay public today, the attention having been focused by that Genetics Committee report mentioned. In support of that Genetics Committee belief, Glass[6] and others show that point mutations in chromosomes always increase linearly in proportion with the radiation dosage; as long as one deals in terms of the ionizing effects of the radiation. Also it has been shown that quanta of radiation act individually with no sign of a threshold below which mutations do not occur. This means that any radiation reaching the gonads, no matter how small the quantity, may produce mutations. Most geneticists feel that these mutations are invariably harmful; and, as Glass[6] states, "the total number of harmful mutations estimated to be induced by annual medico-dental diagnostic and therapeutic gonadal doses is 3,333 mutations in four million births." Estimating each generation as 30 years, he states, "the annual exposure of the entire population at this rate for 30 years would lead to a rate of 100,000 mutations in four million births." With an estimated four million annual births, the number of total harmful mutations or "genetic deaths" would be 200 in the first year, 6,000 in the thirtieth year until equilibrium is reached, at which time approximately 100,000 mutations would be noted annually. If these figures are correct then physicians have certain responsibilities of protection and precautions for patients. Yet, as Stone[7] so ably points out, concurrently with the great expansion of the use of roentgen rays infant mortality has dropped from 99.9 per thousand live births in 1915 to only 26.4 in 1955. Fetal deaths or stillbirths have dropped from 23.9 per thousand live births since 1945 to 17.1 in 1955. He also points out that American children today are taller, healthier, and have a lower death rate than before the medical use of radiation began and some of the figures would indicate that this is still continuing in the face of great expansion of the medical use of roentgen rays.

Although I have pointed out that some of these statements may or may not be correct in either numerical accuracy or on a philosophic basis. still, physicians in clinical practice are faced with the problem of combating the relatively adverse publicity which has been rather poorly presented to the general public. Let us then look at what dosage is received by the patient in certain diagnostic procedures and find out what can be done about it.

TABLE 1

RADIATION DOSE (mr) IN PELVIMETRY

	Skin	*Fetal*	*Ovary*
AP	5,000	400	400
	1,400	200	200
LAT	40,000	30,000	4,200
	5,800	100	100

TABLE 2

RADIATION DOSE (mr) IN UROGRAPHY

	Skin	*Testes*	*Ovary*
HIGH	6,800	1,200	1,000
LOW	3,330	124	200

TABLE 3

RADIATION DOSE (mr) IN CHEST

	Skin	*Testes*	*Ovary*
PA	160	0.36	0.07
	31	0.01	0.02
LAT	420	0.26	0.27

Table 1 shows the high and low dosage in mr. in pelvimetry examinations as taken from Laughlin, et al.[8] Dosage to the ovary is not insignificant. Table 2, from the same source, gives dosages when a 4 film intravenous urographic study is performed. In chest examinations the gonadal dosages are considerably less due to the position of the primary beam and lesser intensity of radiation necessary in this examination as compared to the other examinations. This is shown in table 3.

As one can easily see in these three charts, dosages are considerably higher when the beam is directed at the pelvis; however, it is easily noted that radiation still reaches the gonads in the performance of a chest x-ray examination.

The technics by which diagnostic x-ray examinations are performed reveal a rather surprising group of figures regarding patient dosage. The following charts are a summary of the findings presented in an exhibit by one of the commercial exhibitors at the 1957 convention of the Radiological Society of North America.

TABLE 4

EFFECT OF BEAM COLLIMATION

Chest films at 6 ft., all with 70 kvp, 10 mas and entrance dose 0.36 r.

Cone	*Field*	*Remarks*
none	1,520 in²	A whole body gonad dose high
round	615 in²	Still included head and pelvis
videx	169 in²	Chest only; gonad dose low

Table 4 shows the effect of collimation on chest films made at six foot distance, all using a 70 kvp and 10 mas technic. The entrance dose was 0.36 r.

TABLE 5

EFFECT OF KV ON PATIENT DOSE

Kv	*Grid*	*Mas*	*Dose*	*%*
60	8.1	50	0.44r	100
80	8.1	16.1	0.25r	56
100	8.1	5.0	9.11r	25
120	8.1	3.3	0.10r	23

TABLE 6

EFFECT OF ADDED TUBE FILTRATION

Filter	*Kvp*	*Mas*	*Dose*	*%*
none	60	75	3.10r	100
1 mm Al	60	80	1.45r	47
2 mm Al	60	88	0.95r	31
3 mm Al	60	98.5	0.80r	26

TABLE 7

ABSORPTION BY CASSETTE FRONT

Cassette	*Kvp*	*Mas*	*Dose*
approx. 2¼ mm Al	60	62.5	0.5r
approx. 0.5 mm Al	60	50.0	0.4r
Filter between tube and patient reduces dose; Filter between patient and film increases dose.			

With no cone to confine the field a tremendous area is irradiated giving a high total body dosage and a high gonad dose. With a round cone confining the field considerably, the head and the pelvis are still included in the primary beam of radiation; however, using a cone confined to the size of the 14 by 17 cassette only, the chest is the only body area irradiated and the gonad dose is extremely low. The effect of kv on patient dosage is seen in table 5 and it is easily seen that dosage is markedly decreased using a high kilovoltage technic. Table 6 demonstrates the advantage of additional tube filtration in the reduction of patient dosage. In order to expose the film properly in the cassette sufficient radiation must pass through the cassette front and this absorption by the cassette front, although a minimal factor, is still of some importance. This is demonstrated in table 7. Some physicians desire a quick developing time, albeit standard developer is used. This necessitates increasing exposure and table 8 shows the error made by increasing exposure for this purpose. When all factors are considered, as seen in table 9, using increased kilovoltage, collimating the beam carefully, using fast speed screens and cassettes of minimal front absorption and increasing the filtration in front of the tube as well as using a long development time cuts the dosage received by the patient to a marked degree.

TABLE 8

EFFECT OF DEVELOPING TIME

Dev. Time	*Kvp*	*Mas*	*Dose*	*%*
1 minute	70	25	0.07r	100
2 minute	70	20	0.06r	...
3 minute	70	10	0.03r	...
5 minute	70	6.7	0.02r	29

TABLE 9

ALL FACTORS CONSIDERED

Kvp	*Mas*	*Cone*	*Cassette*	*Screens*
60	350	none	2¼ mm Al	medium
80	33⅓	yes	.5 mm Al	Fast
	Filter	*Time*	*Dose*	*%*
	0	3 min.	14.5r	100
	3 mm Al	5 min.	0.5r	3.5

It has been estimated that there are 125,000 roentgen ray machines in the United States, of which approximately one half belong to dentists and the other half to chiropractors, chiropedists, osteopaths and medical doctors. Of those machines that are owned and operated primarily under the direction of a Doctor of Medicine, only approximately 60 per cent have adequate barriers to protect the physician and his employees.

So, while the geneticists may have, to our thinking, jumped off the deep end in accusing diagnostic x-ray as a source of danger and hazard to the population, certainly it behooves physicians to do their utmost to give adequate protection to the equipment so that the personnel who are employed and the patients who are examined are given as low a dosage as possible to achieve the beneficial result of the diagnostic procedure.

SUMMARY

In summary what can be done to achieve this goal?

1. Let us cut down the number of unnecessary examinations performed. While I do not believe that this is one of the major areas in which to reduce radiation exposure, certainly there are some examinations which are needless.

2. Let us add protection to equipment so that we can use high kv technics, beam collimation, increased filtration before the tube, standard development time and high speed screens in low filtration cassettes.

3. Let us remember that roentgenography of the pelvis in pregnant females, particularly in the first six to eight weeks of pregnancy, is an extemely hazardous procedure. Not only do we increase the opportunity for gonadal mutation in the female but also the somatic mutation in the tissue of the developing embryo. Congenital defects are produced in greater degree during this period.

4. Let us also remember that while diagnostic roentgenology has been found to be a major source of radiation to the gonads of our population, that same diagnostic radiation has played an extremely important part in extending their life expectancy as well.

5. As physicians recognizing the usefulness of diagnostic x-ray examination, let us begin to think in terms of the minimum dose a patient can receive rather than a tolerance or maximum dose; thereby protecting the patient as much as possible while still giving that same patient the benefit of adequate medical practice.

937 Broadway

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NEW ARENA FOR POLIO FOUNDATION

The National Foundation for Infantile Paralysis (N.F.I.P.) has turned its sights on arthritis, the nation's third greatest crippler, now that it feels polio has been conquered.

This doesn't mean it is deserting the polio research field. Rather it is a broadening of the efforts of the N.F.I.P. into an allied health problem. Polio research will be maintained to develop better vaccines and cures for it once it strikes.

The formal announcement of the merger with the Arthritis and Rheumatism Foundation scheduled for release by nationwide closed circuit telecast on July 22 was scooped by a story in the *Chicago Daily News* on July 5.

A COLOSSUS IN ITS FIELD

The *Daily News* said the new foundation would be the largest voluntary health movement in history. Its operating budget is expected to hit 100 million dollars a year in five years. The Arthritis and Rheumatism Foundation was founded by Floyd Odlum, financier. It is headed by Gen. George Kenney. Basil O'Connor heads the N.F.I.P.

The entry into the new field marks the end of a careful search on the part of N.F.I.P. people for the best place to aim their organization. The success of the Salk vaccine made it imperative they find a new project. Because of the vast amount of information compiled on virus diseases during its 20-year study of polio, the foundation is thought to be in a position to seek answers to other diseases believed to be virus connected.

In addition to broadening research into virus diseases, the new foundation is expected to study congential defects. However, the major emphasis probably will come in the field of arthritis which claims 11 million victims annually, according to the *Daily News*.

AID FOR JUVENILE VICTIMS

The new organization also is expected to provide direct rehabilitation service to juvenile rheumatoid arthritic victims. This would be similar to aid given in the past to polio victims. At the same time, the 300,000 victims of infantile paralysis have been reassured that they will not be forgotten.

The announcement of the merger by O'Connor, comes slightly over five years after Dr. Jonas E. Salk's vaccine made its debut.

In 1952, the year before the vaccine was out, there were 57,740 cases of polio in the United States. Two years later the number was down to 38,476, and in another two years it had dropped to 15,400. Last year less than 6,000 cases were reported. As the *St. Louis Globe-Democrat* commented on its editorial page:

"This remarkable record has been achieved despite the fact that out of the 109,000,000 in this country under 40 only 34,000,000—less than a third—have received the full three injections deemed necessary for the best protection. And 45,000,000 in the under-40 group have received no immunization at all."

Special Articles

The Physician's Role in Court

A Judge's View Concerning an Interprofessional Code

ROBERT G. BRADY, LL.B., *Cape Girardeau*

It should be a matter of satisfaction to the members of the legal and medical profession that progress is being made toward the formulation and enactment of an Interprofessional Code for Attorneys and Physicians. From a personal standpoint, and one which I believe portrays the attitude of the Judiciary of this state, the recognition of the need for such a code as well as the fine spirit of interprofessional cooperation on the whole subject exhibits the high professional standards which the public has come not only to expect but almost to demand of each profession.

Because the problems are complex and of many varied hue it is not possible that all be covered in the space available. Let us confine ourselves to two of the more troublesome. First, how far, if at all, should the physician cooperate with counsel for the party who is opposing the party for whom he has agreed to testify?

I realize that many of those reading this would have stated the question more simply in this manner: How far, if at all, should the physician cooperate with opposing counsel?

I submit that to state the question in that form is almost to answer it. Such a statement by the use of the words "opposing counsel" places the physician clearly in one camp when whether or not this should be so is the very point of our discussion. Awkward as the first statement of the question may be it more clearly illustrates the problem and does not compel, by its very language, any certain solution.

WIDE VARIANCE IN OTHER CODES

Our problem and its importance can easily be seen by a mere glance at the interprofessional codes of other states since there are two diametrically opposed lines of thought upon the question. The Indiana Code, Subsection (d) Statements to Both Sides, adopted September 1957, reads as follows:

> "A physician may not offer observations or opinion or otherwise discuss a case with both sides in a particular proceeding or lawsuit. Nor may he submit to interviews or otherwise furnish reports to attorneys for both parties, except in those cases as required by statute or by express agreement between the parties."

The Delaware Code of March, 1957, Section I, the Physician's Function, reads:

> "When a physician is approached by the attorney on the opposing side of the case, he should remember that a witness does not 'belong' to either side and that he, as in the case of any other witness, is free to talk to a lawyer on both sides."

The difference in the viewpoints is obvious and substantial. As a practical matter the question will usually arise in a situation where counsel have agreed upon furnishing medical reports to each other or where the statute so requires or where there have been depositions taken of the physician and upon reading them in their final form the attorney asks the physician for further explanation of some of his answers in an informal proceeding; that is, with the other attorney being present or answers being written or under oath. The factual situation above presented would cause no problem in Indiana, for under their code the attorney would not make such a request nor the physician grant it, if made. In Delaware, again no problem since their code clearly allows the attorney to make such a request and the physician to grant it. In the event of the adoption of a code in this state which line of thought should Missouri follow in this matter?

FAVORS FREEDOM OF ACTION

It is my opinion that the Delaware Code represents the better view. Nor is that opinion changed by other language in the Indiana Code in the same section, as follows:

> "When a physician who has agreed to offer testimony on a case is approached by attorneys or other representatives for other parties with adverse interests, he should be frank about his prior commitment, notify the attorney for the party for whom he has agreed to testify, and thereafter be guided by the advice of the latter's attorney."

I would emphatically agree that the physician should be frank about his prior commitment otherwise the attorney will often feel that he has been "mousetrapped" into giving away his theory when he would not have otherwise done so. This some-

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Robert G. Brady, Judge of the Court of Common Pleas of Cape Girardeau, has drawn on his experience on the bench for this article. It was prepared for this special Cape Girardeau issue.

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

times occurs when a physician is overly anxious to protect himself from cross examination and desires to "bone up" on any possible authorities expressing opinions divergent from his own. With the same degree of definiteness I would agree that the physician should notify the attorney for the party for which he has agreed to testify. The importance, or as in most cases, unimportance, of that matter is for the attorney to weigh.

I do not agree that the physician should be guided solely by the advice of the counsel for the party for whom he has agreed to testify. I agree he should take that advice into consideration but the physician must also take into consideration the peculiar relationship or function of the advocate.

LAWYER'S POSITION IS UNIQUE

This function or duty often becomes the subject of much soul searching by the members of the legal profession and it is not surprising therefore that it should seem to the members of the medical profession or other non-legal personnel to be a veritable maze of confusion and contradiction. While no responsible attorney would knowingly advise the physician to act one way or another and base that advice upon the advantage that might thus accrue to his client, nevertheless, the advocate's natural zeal in his client's behalf requires the careful physician to do more than merely rely upon the attorney's advice.

That very zeal should also be taken into consideration by the physician and the decision of the physician should, in all cases, be his own decision. As the *Interprofessional Code of Kansas for Attorneys and Physicians*, Section B, Cooperation Between Profession, subsection 3 states:

> "It is recognized that an attorney is the advocate of his client and does not and cannot properly represent both sides."

I cannot see that the fact that the physician may be guided by the advice of the attorney for the party for whom he has agreed to testify corrects the faults of the Indiana Code or brings it to the same result as that of the Delaware Code.

CHOICE IS UP TO PHYSICIAN

It is submitted that the feature of the Delaware Code that compels support is its flexibility. That provision, supra, does not compel the physician to discuss the case with counsel for the party adverse to the party for which he has agreed to testify nor does it forbid him to do so. Instead, it leaves that decision where it rightfully belongs, in the hands of the physician. This accomplishes two desired goals.

In the first place, it preserves the integrity of the physician for then he does not "belong" to either side of the lawsuit. It enable him to feel more certainly that his judgment has not been "purchased" and that merely by agreeing to testify for one side in a controversy he has not "sold himself." This regard for the feelings of the physician should be of utmost concern to the attorney as well as to the physician.

The English language is not exact, but rather is inexact to a frustrating degree. While this may not be present in as great a degree in the use of medical terms, remember that the doctor is attempting to use language the jury will understand. Often, there are several words that can be used to describe the same thing and each might be technically correct, but the effect of one word over another with the triers of the facts may be substantial.

In addition, jurors quite often pay as much attention, and sometimes give more weight, to how a finding is stated than to what the finding is. Nor is this a phenomenon peculiar to jurors but rather is a general failing of our species as anyone who listens to political speeches or after dinner remarks can testify.

The more competent attorney recognizes that, *Dr. Hudson's Secret Journal* to the contrary, physicians are human beings and the human being who feels he has been muzzled is an unhappy human being whose words may be identical to what they should otherwise have been but whose clearness, force and general effectiveness is greatly different from what it might have been. Nor does this mean that a physician who often testifies should join the local little theatre group or otherwise avail himself of Thespian training.

JURIES ARE CANNY

Nothing will so reward the student of human behavior or so reinforce his belief in the right of free men to govern themselves as to observe the reaction of the jury to the actor-witness or to wait for the verdict and see how little weight was given that witness' testimony.

If one desires to be facetious, it could be said that the second goal the Delaware provision allows is that the physician is at least given the dignity of a non-expert witness for there is nothing in the law that prevents any witness from talking to anyone or as many as he likes, and it would seem that the physician should be considered as competent to decide whether or not to talk to anyone or to both as any other witness.

Actually, the second goal is that the interests of justice can much more often be served by the presentation of all of the evidence, regardless of who it comes from, than it can by the withholding of any. If the attorney thinks he has a point of value to his client and thus of interest to the jury, he should be allowed to ask the physician about it and that should be so, regardless for whom the physician is to appear at the trial.

If it develops his point is well taken he should, in the interest of justice, be allowed to develop it and present it to the jury and this, most often, can-

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not be done without a prior conference with the physician. Nor is it any answer to this point to say that the attorney had his opportunity upon deposition. The written word is well recognized to provoke more thought than the spoken and after time to study and reflect upon the matter is had, additional questions are more likely to occur than during the stress of a brief deposition.

NO POSITIVE OR EASY ANSWER

Neither is it any answer to say that the opposing party may produce his own medical witness. The witness is asked for the whole truth upon his oath and present trials are complicated enough without additional witnesses. True, that often becomes necessary when, in good conscience, one physician cannot testify as another has, but if an inquiry is allowed as the Delaware Code provides, perhaps one doctor will be sufficient. After all, the weight to be given to any answer made by the physician to the attorney for the party opposing the one for whom he was called is for the jury. The physician merely gives the testimony, the jury evaluates it. Moreover, the opposing party may not be financially able to arrange for competent medical testimony and justice should not be a matter of who has the greater financial resources. Of course, the doctor should charge the attorney for the party opposing the side for which he has agreed to testify a reasonable fee for such consultation.

There is another problem of importance where such a code could be of assistance to the members of each profession. It is recognized that there are two categories of medical testimony.

Either a doctor testifies for his patient or as an expert witness (Interprofessional Code of Kansas, Section D, Medical Testimony, subsection 8). In the latter case the doctor is ordinarily testifying as to a party who has not been his patient and usually in response to a hypothetical question. It is this latter category that causes the most concern. In the first place the physician needs to realize that he is an expert witness in all phases of medicine when he is upon the stand. An expert witness is one who by reason of education or specialized experience possesses superior knowledge respecting a subject about which persons having no particular training are incapable of forming an accurate opinion or of deducing correct conclusions. *Gaddy v. Skelly Oil Co.*, 259 S.W. 2nd 844.

NOT REQUIRED TO BE SPECIALIST

The fact that the doctor may not be a specialist in this particular field does not disqualify his opinion if he gives one. For example, a doctor who treated a patient and had been practicing nine years was held competent to testify as to a nervous condition, though not a neurologist. *Sanquinett v. May Dept. Store*, 65 S.W. 2nd 162. The fact that he was not a neurologist could be commented upon by counsel but that fact only goes to the weight or value the jury may assign to the testimony. It does not affect competency.

However, the medical witness cannot be compelled to give an opinion if he has none. If he cannot answer the hypothetical question propounded to him without special study or if it does not contain sufficient facts upon which to form an answer, he should so state. Or if he feels that he is incapable of forming an accurate opinion because of lack of training or experience in that particular field, he should so state.

Now, if the medical witness considers the question to contain sufficient basis for him to form an opinion and if he has an opinion, then how should he frame his answer? We are not here dealing with the duty of the medical witness to explain or edify, nor with his obligation to use laymen's language as far as possible, but are concerned with his expression of his opinion. In short, what constitutes a proper answer to a hypothetical question asking for an opinion? In the case of *Thomas v. Metropolitan St. Ry. Co.*, 100 S.W. 1121, a hypothetical question was asked a medical witness testifying as an expert. The question asked the doctor to assume certain facts and then ended with, "Did such condition in your opinion result in shock?" The answer given was, "We might suppose it did." The Kansas City Court of Appeals held that such an answer did not express the doctor's opinion.

THIS ONE WAS ACCEPTED

In the case of *Wack v. Schoenberg Mfg. Co.*, 53 S.W. 2nd 28, a decision of the Missouri Supreme Court, it was held that an answer to a hypothetical question stating, "Assuming all these things to be true it is within the possibilities; yes, Sir," did state the opinion of the expert witness and was admissible. (The opinion discusses the case of *O'Leary v. Scullin Steel Co.*, 260 S.W. 55 at length. That case is of such importance to the medical witness it cannot be fully discussed herein. Suffice it to say it is the leading case in the state upon the expert being allowed to testify that in his opinion certain effects were caused by the act complained of.)

In the case of *Armstrong v. Croy*, a decision of the Springfield Court of Appeals, an expert witness, not a physician, in his answer to several questions phrased those answers in these words: "I believe, etc.," "If I am not mistaken," and "I think." The Court held that such testimony should be rejected unless it sufficiently appears that such terms are used to express his opinion or judgment. See also *Williamson v. St. Louis Public Service Co.*, 252 S.W. 2nd 295, a 1952 decision of the Supreme Court of this state. That is, unless the whole of the answer would make clear that an opinion was expressed. The danger is so obvious that the competent medical witness will be careful to avoid such words in expressing his opinion. In any event, even if such testimony were to get into the case because no objection was made or in some other way, it is of doubtful practical value. The law in Missouri is clear that an opinion as to what "might" or "could" (stronger and more definite language than that recited above) result from a given cause while admissible does not alone make a case which can be submitted to the jury. *Fritz v. Manufacturers Ry. Co.*, 124 S.W. 2nd 603, at page 607. *Wack v. Schoenberg Mfg. Co.*, supra.

RECOMMENDS KANSAS CODE

The interprofessional code of this state, when and if it comes into being and effect, should go further than the Indiana Code and should, in my opinion, include language similar to that found in the Kansas Code, Section D, Medical Testimony, subsection 6 (b) which reads as follows:

> "(b) Answer questions as concisely and objectively as possible, using terminology, when permissible, which is understandable to a jury of laymen."

That is necessary, of course, but the answers need meet the further objections of indefiniteness or lack of amounting to the expression of an opinion. Subsection 6 (c), ibid., goes on to state:

> "(c) If he does not know the answer to any question and makes no attempt to conjecture or theorize, *or give answers not responsive to questions propounded* or volunteer testimony." (emphasis supplied)

It is submitted that an answer couched in terms such as "I think," "I suppose," "If I am not mistaken," and etc. is not responsive to a proper hypothetical question asking for the expert witness' opinion. It might even be well to make subsection (c) above quoted speak in stronger language regarding the use of such indefinite answers. Of course, the safe answer is, "I have no opinion," or "I do not have a sufficient basis in the facts recited in the question (or in my experience, or in my training), upon which to form an opinion." Or "My opinion is that it would (could or might)," or "My opinion is that it could not (would not, etc.)"

MANY PROBLEMS TO RESOLVE

These are merely two of the many problems that will face the framers of such a code. There will undoubtedly be many more troublesome and some less troublesome. Some may even be incapable of definite solution at the present time but the experience of our professional associations within some 20 states that now have such interprofessional codes make it clear that if a code were to be adopted in this state, it would be of value as a guide for the action of the members of the legal and medical professions enabling them to more adequately meet their respective obligations to individuals and to society.

However, care should be taken so that such a code, when and if finally adopted, is not regarded either as a panacea for all ills nor as the final and conclusive authority for every situation. Codes are seldom, if ever panaceas and especially is this true of the form of the code upon its first adoption. The subject is of such a nature that all of the troublesome areas cannot be effectively dealt with upon the first trial. There will have to be almost continuous amendment for some time after adoption of the code in order to provide for more effective coverage of various troublesome areas that will continue to arise. In like manner codes are seldom, if ever, so complete that they may be accepted as the final and absolute authority.

ALWAYS NEW PROBLEMS

From time to time even after the adoption of the code there will be situations not expressly covered by the code either because they were not in existence at that time or because being exceptional, they were ommitted. In those cases the practitioner of medicine or the law should not then proceed blindly to assume that what is not expressly covered was intentionally omitted and is "free territory."

On the contrary, the spirit and intent of the code will be readily ascertainable and cannot help but be of assistance in the determination of such questions.

If this spirit is carried out there will be few questions which cannot be resolved or their solution greatly aided by such a code when it is understood as a guide and not as a panacea or as the final word upon all such questions.

In the final analysis, reason and common sense, together with mutual respect and understanding by each profession for the problems of the other, must constitute the final test to which the practitioner of each profession should, and I believe, must subject his interprofessional actions if either profession is going to be able to meet the highly complex and demanding duties placed upon it by the social and economic development of our society at present and those that will unodubtedly be placed upon it in the future as that society continues to grow and change.

Special Article

AMA Annual Session

San Francisco
June 23 to 27, 1958

Report of the Missouri Delegates to the AMA

JOSEPH C. PEDEN, M.D., *St. Louis;* DURWARD G. HALL, M.D., *Springfield;* H. E. PETERSEN, M.D., *St. Joseph,* AND ROLLA B. WRAY, M.D., *Nevada*

Report of this meeting by Rolla B. Wray, M.D.

All of the delegates from Missouri attended the Session and the House of Delegates, except Dr. F. L. Feierabend, Kansas City, who was unable to be present because of personal affairs. He was replaced by his alternate, Dr. Wray. Dr. H. Relton McCarroll, St. Louis, Delegate from the AMA Section on Orthopedics was present. Also present were Dr. W. F. Francka, Hannibal, President of the Missouri State Medical Association; Dr. J. H. Summers, Lebanon, Chairman of the Council of MSMA; Dr. Kenneth C. Hollweg, Kansas City, Councilor; Dr. Bryon M. Stuart, Boonville, Councilor; Dr. Joseph L. Fisher, St. Joseph, Past Speaker of the MSMA House of Delegates; Dr. Alphonse McMahon, St. Louis, Chairman of the AMA Council on Scientific Assembly; Dr. Carroll P. Hungate, Kansas City, member of the AMA Council on National Defense; Dr. James R. McVay, Kansas City, former Trustee of the AMA, and Dr. Carl Vohs, St. Louis, past president of the MSMA. Missouri was represented by nearly 150 physicians, as well as Delegates to the Woman's Auxiliary of the AMA. Mrs. Henry C. Bauman, Maryville, President of the Woman's Auxiliary of Missouri, was present. The names of other Missouri physicians are at the end of this article.

Restriction of free choice of physicians by the United Mine Workers' Welfare and Retirement Fund proved one of the hottest items in the House of Delegates at the 107th annual meeting of the American Medical Association June 23-27 in San Francisco.

Kicking over a reference committee report, the delegates voted 110 to 72 for an immediate public relations campaign to educate the public to the restrictions being imposed by the UMWA's Fund.

Colorado lead the uprising, saying that further delay was intolerable. Nevada, New York, Hawaii, Kentucky and Texas took the floor in support of Colorado.

Other subjects acted upon included Social Security coverage for self-employed physicians, VA medicine, relations with voluntary health organizations, Medicare program, a survey of the AMA's Washington office, and the medical aspects of hypnosis.

PRESIDENT-ELECT IS FROM FLORIDA

Dr. Louis M. Orr, urologist of Orlando, Fla., was chosen unanimously as president-elect for the coming year. Dr. Orr, 59 years old, who in recent years has been vice speaker of the House of Delegates and chairman of the AMA Committee on Federal Medical Services, will become president of the American Medical Association at the June, 1959, meeting in Atlantic City. He then will succeed Dr. Gunnar Gundersen of La Crosse, Wis., who became the 112th president at the inaugural ceremony in the Rose and Concert Rooms of the Sheraton-Palace Hotel.

The 1958 Distinguished Service Award of the American Medical Association was voted to Dr. Frank Hammond Krusen, professor of physical medicine and rehabilitation at Mayo Foundation, Rochester, Minn., for his outstanding achievements and contributions in the field of physical medicine and rehabilitation. For only the fourth and fifth times in AMA history, the House also approved special citations to laymen for outstanding service in advancing the ideals of medicine and contributing to the public welfare. Recipients of these awards were Mrs. Charles W. Sewell of Otterbein, Ind., who has spend 45 years in rural health work, and Gobind Behari Lal, Ph.D., distinguished science writer and Pulitzer prize winner.

Total physician registration passed the 13,000-mark, with 13,034 signed in by Thursday noon.

This exceeded the entire doctor registration four years ago in San Francisco by nearly 1,000. The over-all total of doctors and guests was close to 38,000, just slightly under the 1954 total of 39,343.

UNITED MINE WORKERS

Major floor discussion on relations between medicine and the UMWA Welfare and Retirement Fund centered on a reference committee report which concurred in a Board of Trustees opinion. The report recommended that final action on two resolutions adopted in December, 1957, should be postponed until the final report of the Commission on Medical Care Plans is received.

One of those resolutions, No. 20, declared that "a broad educational program be instituted at once by the AMA to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June."

The other resolution, No. 24, called for the appropriate AMA committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

In explaining its position that final action on the two resolutions should be taken only after proper study, the reference committee said it "anticipates that the final report of the Commission on Medical Care Plans will contain recommendations serving to clarify the relationships between the medical profession, the patient and third parties, and the committee has been assured that this can be expected." The committee also urged the Commission to present its recommendations no later than December, 1958.

The House of Delegates, however, adopted Colorado's amendment "that this section of the Reference Committee report be amended to show that our AMA Headquarters Staff is directed, under supervision of the Board of Trustees, to proceed immediately with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the Council on Medical Service be relieved of any further responsibility in this matter."

SOCIAL SECURITY COVERAGE

In considering seven resolutions dealing with the inclusion of self-employed physicians under the Social Security Act, the House disapproved three which called for polls or a referendum of the AMA membership, one which favored state-by-state participation in Social Security, and two which called for compulsory inclusion on a national basis.

Instead, the House adopted a resolution pointing out that "American physicians always have stood on the principle of security through personal initiative," and reaffirming unequivocal opposition to the compulsory inclusion of self-employed physicians in the Social Security system.

On the question of polls, the House expressed the opinion that any poll should be taken on a state-by-state basis and the results transmitted to the AMA delegates from that state. It also pointed out that since there is no provision in the Constitution and Bylaws for a referendum of members, such a referendum would usurp the duties and prerogatives of the House—the Association's policy-making body.

VETERAN'S MEDICAL CARE

The House applauded and adopted a Missouri resolution aimed at cutting down the number of patients in Veterans Administration hospitals with nonservice-connected disabilities. It was introduced by Dr. Hall, on behalf of Missouri.

The resolution pointed out that the Federal government spent $619,614,000 on hospitalized medical care of veterans in VA hospitals of which about 75 per cent had nonservice-connected disabilities. As amended by the reference committee, the resolution called on the AMA to "suggest to the Dean's committees that they restrict their activities to Veterans Administration hospitals admitting only service-connected disabilities.

Missouri's other resolution calling for a restudy of the osteopathic question was withdrawn before it was considered by the reference committee. The action followed the delegation's appraisal of the political climate of the convention. It was introduced by Dr. Peden on behalf of the delegation.

VOLUNTARY HEALTH ORGANIZATIONS

Dealing with problems that have arisen in the raising and distributing of funds since development of the concept of united community effort, the House adopted the following statement offered in the form of amendments from the floor:

"1. That the House of Delegates reiterate its commendation and approval of the principal voluntary health agencies.

"2. That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest.

"3. That the House of Delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.

"4. That the Board of Trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution."

THE MEDICARE PROGRAM

In disapproving a resolution calling for repeal, modification or amendment of Public Law 569, the House took the position that desired changes in the Medicare program could be accomplished through modification of the present implementing directives without the necessity for new legislation.

The House reaffirmed the action taken last year in New York recommending that the decision on type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination.

Also reaffirmed was the Association's basic contention that the Dependent Medical Care Act as enacted by Congress does not require fixed fee schedules; the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees and fixed fee schedules would ultimately disrupt the economics of medical practice.

WASHINGTON OFFICE

The House adopted a resolution requesting the Board of Trustees to make an immediate survey and re-evaluation of "the functions and effectiveness of the over-all AMA legislative system including the Washington office, in the light of present-day needs of the government, public and medical profession alike for effective liaison between government and medicine on all matters affecting the public's health and adequate, prompt and accurate transmittal to the full membership of the AMA of information on all current public issues in which the physician has a direct interest."

The resolution asked that the Board of Trustees implement, as rapidly as possible, all changes and additions that its survey discloses are desirable to achieve the basic purpose of the resolution, "effective public and government relations."

MEDICAL ASPECTS OF HYPNOSIS

A Council on Mental Health report on "Medical Use of Hypnosis" was approved by the House, which recommended that it be published in the *Journal of the American Medical Association* with bibliography attached. The report stated that general practitioners, medical specialists and dentists might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence.

It stressed, however, that all those who use hypnosis need to be aware of the complex nature of the phenomena involved. Teaching related to hypnosis should be under responsible medical or dental direction, the report emphasized, and should include the indications and limitations for its use.

The report urged physicians and dentists to participate in high level research on hypnosis, and it vigorously condemned the use of hypnosis for entertainment purposes.

OVER-THE-COUNTER MEDICATIONS

The House endorsed recommendations by the Public Relations Department that:

The AMA join with other interested groups in setting up an expanded voluntary program, coordinated by the National Better Business Bureau, which will seek to eliminate objectionable advertising of over-the-counter medicines.

The AMA counsel with the National Better Business Bureau in the selection of a physicians' advisory committee.

The established facilities of the AMA, such as the Chemical Laboratory, the offices of the various scientific councils, the Bureau of Investigation, be made available, so fare as is feasible, to aid in the carrying out of this program.

The Public Relations Department continue its liaison work with the various groups involved and assist in the development and operation of this program in any way possible.

The AMA become a sustaining member of the National Better Business Bureau, giving evidence of its willingness and desire to support this organization in its worthwhile activities.

MISCELLANEOUS ACTIONS

Among a wide variety of actions on many subjects, the House also:

Recommended the appointment of a Committee on Atomic Medicine and Ionizing Radiation and suggested that it concern itself with informing the American public on all phases of radiation hazards related to the national health;

Approved in principle the admission of the Virgin Islands Medical Society as a constituent society of the American Medical Association;

Commended the Federal Food and Drug Administration for its untiring efforts in behalf of the public and the profession, and urged all states to review and strengthen their food and drug laws;

Approved the "Suggested Guides for the Organization and Operation of Medical Society Committees on Aging," submitted by the Council on Medical Service;

Commended the Committee on Medical and Related Facilities of the Council on Medical Service for its report on the Hill-Burton Study and approved its recommendations;

Requested that any funds provided under the Public Assistance provisions of the Social Security Act for medical care of the indigent be administered by a voluntary agency such as Blue Shield on a cost plus basis or by a specific agency established by the medical society of the state in which indigent care is rendered;

Directed the Board of Trustees to study problems pertaining to licensure by reciprocity and to consult with the Federation of State Medical

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Boards in an attempt to find a satisfactory solution;

Urged all members of the House of Delegates to give full consideration to the preliminary report of the Committee on Preparation for General Practice and to submit comments and suggestions to that committee;

Expressed the opinion that some operating room experience is valuable and necessary training for all nurses;

Recommended that general hospitals, wherever feasible, encouraged to permit the hospitalization of psychiatric patients, and

Approved a National Interprofessional Code for physicians and attorneys prepared by the joint liaison committee of the American Medical Association and the American Bar Association.

OPENING SESSION

At the Monday opening session Dr. David B. Allman, retiring AMA president, urged every physician to rededicate himself to the service of mankind and every medical society to strengthen its disciplinary system "to prevent the very few from besmirching the vast majority of us."

Dr. Gundersen,* then president-elect, said the Association is moving ahead in finding the best possible ways to serve both the public and the medical profession, and he declared there is no reason to believe that its influence and impact will not continue to grow in the times ahead. The Goldberger Award in clinical nutrition was presented to Dr. Virgil P. Sydenstricker, professor emeritus of medicine at the Medical College of Georgia.

INAUGURAL CEREMONY

Dr. Gundersen, in his Tuesday night inaugural address, called upon the medical profession to accept its full responsibilities in promoting better world health, brotherhood and peace, adding that "the time has come when medical statesmanship must be used to augment the methods of political diplomacy." Dr. Gundersen also presented the Distinguished Service Award to Dr. Krusen and the special layman citations to Mrs. Sewell and Dr. Lal. The Shrine Chanters of Oakland, Calif., provided choral numbers during the program.

ELECTION OF OFFICERS

In addition to Dr. Orr, the new president-elect, the following officers were selected by the House on Thursday:

Dr. W. Linwood Ball of Richmond, Va., vice-president; Dr. E. Vincent Askey of Los Angeles, re-elected speaker, and Dr. Norman A. Welch of Boston, vice-speaker.

Dr. Warren W. Furey of Chicago was elected for a 5-year term on the Board of Trustees, succeeding Dr. E. S. Hamilton of Kankakee, Ill. Dr. Furey's nomination was seconded by Dr. Peden speaking for the Missouri delegation.

Dr. Raymond M. McKeown of Coos Bay, Ore., was re-elected for a 5-year term.

Dr. R. B. Robins of Camden, Ark., was named to fill the one year remaining in the unexpired term of Dr. F. J. L. Blasingame. His nomination came from Missouri with Dr. Hall acting as spokesman. Dr. Leonard W. Larson of Bismarck, N. D., was elected chairman of the Board at its organizational meeting after the Thursday elections.

Dr. George A. Woodhouse of Pleasant Hill, Ohio, was renamed to the Judicial Council. Elected to the Council on Medical Education and Hospitals were Dr. Leland S. McKittrick of Brookline, Mass., to succeed himself, and Dr. John V. Bowers of Madison, Wis., to succeed Dr. Victor Johnson of Rochester, Minn.

Dr. R. B. Chrisman, Jr., of Coral Gables, Fla., and Dr. J. F. Burton of Oklahoma City, Okla., were re-elected to the Council on Medical Service. For the same Council, Dr. Russell B. Roth of Erie, Pa., was named to fill the unexpired term of Dr. H. B. Mulholland of Charlottesville, Va., resigned.

Three members were elected to the Council on Constitution and Bylaws: Dr. William Stovall of Madison, Wis., to succeed Dr. Stanley H. Osborn of Hartford, Conn.; Dr. William Hyland of Grand Rapids, Mich., to fill the unexpired term of Dr. Floyd S. Winslow, deceased, of Rochester, N. Y., and Dr. Walter Bornemeier of Chicago, to replace Dr. Furey.

The House approved a Board of Trustees announcement that Miami Beach will replace Chicago as place of the 1960 Annual Meeting, and New York will be the site of the 1961 Annual Meeting. Action was postponed on selection of the city for the 1962 Annual Meeting.

Rising votes of appreciation were given to Dr. Hamilton; Dr. George F. Lull, retiring secretary, and Dr. J. J. Moore, retiring treasurer. Changes noted in the constitution and bylaws combine the positions of secretary and treasurer into one office, to be filled by a trustee. The board will make the selection.

Missouri registrations, as shown on the AMA registration lists:

From Columbia—Drs. Thomas W. Burns, William D. Gaunt, H. E. Stephenson, Jr., Robert L. Jackson, Theodore E. Keats, William J. Stewart.

From Kansas City—Drs. Milton B. Casebolt, William H. Goodson, Jr., Robert Jansen, George K. Landis, H. J. Rinkel, Orval R. Withers, Ralph E. Duncan, James D. Dunleavy, Hugh L. Dwyer, Charles J. Eldridge, L. F. Steffen, Mary P. Altringer, Robert M. Hazen, John A. Shahan, Sanford Simon, Doyle C. Whitman, Bruce V. Drowns, Carl D. Enna, John A. Growdon, Thomas A. Kyner, Everett A. Wilkinson, Frederick B. Camp-

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* The complete text of Dr. Gundersen's presentation appears on page 889 of this issue of Missouri Medicine.

Address of the President

GUNNAR GUNDERSEN, M.D., *La Crosse, Wis.*

Probably no single word symbolizes the core of most of our problems than the word change. As citizens today, we must see our communities, our nation and the entire world undergoing profound changes of many kinds. As physicians, we practice medicine in a constantly changing social, economic and political climate. Our own organization, the American Medical Association, already has initiated a number of recent organizational and administrative changes. And I am confident that many more changes are in the offing, as your AMA moves ahead to find the best possible ways of serving both the public and the profession.

Changes are coming, and we have to be alert and adaptable in facing up to them. At the same time, we also must realize the circumstances under which new ideas or new methods can most wisely be put into play. We have to give careful consideration to priorities, proper timing, adequate informational efforts within our own ranks, and the opinions of all our members.

Any note, no matter how clear, can be a discord if it strikes at the wrong time. On the other hand, it has been pointed out, nothing is more powerful than an idea whose time has come.

TRANSITION

The American Medical Association, we all must realize, is a complex organization, dealing as it does with individual physicians, state and county medical societies, the public, and a great variety of groups and agencies outside our own immediate field. Over the years, however, it always has been a going, growing concern—effective in its efforts even during periods of change and strife. There is no reason to believe that its influence and impact will not continue to grow in the times ahead. To achieve maximum efficiency, we now are entering a period of patient transition, but this cannot be accomplished in a minute, an hour or a day.

It is a task which will require guidance from sincere, thoughtful persons in all areas of medicine. I strongly urge all of you, and the medical societies which you represent, to give active cooperation to the Committee to Study AMA Objectives and Basic Programs. This committee, which was established by your action at the Philadelphia meeting last December, and has since been appointed by the Speaker, has four objectives:

(1) to redefine the central, basic concept of AMA objectives and basic programs;

(2) to consider the placing of more emphasis on scientific activities;

(3) to take the lead in creating more cohesion among national medical societies,

(4) to study socio-economic problems.

The committee already has begun its work of mailing a 2-page questionnaire to AMA past presi-

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Delivered at the Opening Session, House of Delegates, American Medical Association, San Francisco, June 23, 1958.

AMA Annual Session—(Continued)

bell, L. E. Riller, W. C. Schaerrer, G. C. Kealhofer and George J. Lytton.

From St. Louis area—G. O. Broun, D. B. Flavan, Alfred Goldman, A. D. Karandjeff, R. E. Kelly, Charles L. Klenk, John T. Lawton, Charles W. Miller, James E. Miller, Daniel L. Sexton, Walter Baumgarten, Jr., Charles J. Cherre, John B. Devine, James W. Fletes, James R. Meador, Herman M. Meyer, Benjamin Milder, Lester A. Millikin, Wm. H. Olmsted, Charles D. Ottensmeyer, Rudolf Ruhling, Matthew W. Weis, Bernard Becker, Bertrand D. Coughlin, Alvin Goldfarb, L. F. Hayden, Aaron Hendin, Newell Schlueter, A. J. Steiner, Harvey S. Braufman, D. V. Costa, Lee T. Ford, Max S. Franklin, Joseph B. Guccione, Roland S. Kieffer, Philip S. Luedde, Edward Massie, Robert Moses, Paul W. Miles, John B. Shaplaigh, Warren C. Stamp, Norman Tobias, Leo L. Wacker, Harold E. Walters, Ralph B. Woolf, Martin J. Glaser, Wm. A. Knight, Jr., Lewis Littmann, Paul S. Lowenstein, H. R. McCarroll, Carl V. Moore, Henry E. Oppenheimer, Wendell G. Scott, Anita Younger, Ernest Younger, Jack Zuckner, W. A. Thomas, Otto T. Wilhelmi, L. J. Reilly, and E. E. Tremain.

Springfield physicians were Drs. Dallas D. Anthony, Jr., O. B. Crawford, R. C. Conrad, Wilfred E. Wooldridge, E. M. Dillard, F. T. H'Doubler, Jr., Stanley S. Peterson.

St. Joseph physicians were Drs. T. H. Saferstein, Donald J. Stallard, R. L. Magnin, John N. Martin, S. C. Benson, Irwin I. Rosenthal.

Joplin physicians were Drs. John E. Burch, Sandor D. Papp, E. R. Hornback, Juliette M. Eliscu.

Physicians from other Missouri cities: Drs. Lewis C. Calvert, Weston; J. W. Fleming, Jr., Moberly; Ralph Franklin, Morehouse; Jordan Kelling, Waverly; Henry C. Sweany, Mount Vernon; Henry C. Bauman, Maryville; G. K. Davault, Richmond; Thomas Fleming, Moberly; W. E. Martin, Odessa; Ernest D. Szabados, Independence; James R. Carter, Neosho; Charles T. Edmondson, Malden; Joseph S. Guasch, Mount Vernon; Robert H. Hodge, North Kansas City; Myron C. Johnson, Richmond; Benjamin N. Jolly, Mexico; William J. Shaw, Fayette; H. L. Biggs, Raytown; John H. Kibbe, Monroe City; L. R. McIntire, St. Charles; James O. Smith, Clinton; R. G. Pugh, Independence, and William H. Goodson, Liberty.

idents, officers, trustees, delegates and alternate delegates of this House, state and county medical society officers, editors of medical journals, and other national medical organizations. The same questionnaire also will be mailed to a sizeable cross-section of individual physicians—both AMA members and non-members. This committee hopes for constructive suggestions based on serious, careful thought. To that hope I add my own earnest desire that the entire profession will work to make this study project a fruitful, worthwhile effort.

LIAISON ESSENTIAL

Closer liaison and constructive planning in conjunction with specialty groups and other medical organizations is essential if we are to achieve the kind of medical unity which will serve the best interests of both medicine and the public. Such positive action frequently can help to eliminate the need for unwise, constructive legislation. An example of this is the recent cooperation between the AMA and the American College of Radiology. Following approval by our Council on Medical Physics, the College is distributing a "Manual on the Medical and Dental Uses of X-Ray" to every physician in the United States. Through education this effort can help bring about a much more effective understanding and application of medical radiation than could be accomplished by any compulsory, heavy-handed attempt through federal legislation.

We in medicine must realize, however, that we cannot do the job alone. If we are to be fully effective in all our efforts—whether they be scientific, socio-economic or educational—we must enlist the cooperation and support of many groups and allies outside our own profession. We need to work harder at developing active, continuing liaison with education, the insurance industry, labor, management, Blue Cross, Blue Shield, the pharmacy profession, pharmaceutical manufacturers and many other groups interested in the nation's health and welfare.

This work calls for greatly increased efforts on the state and local level. The American Medical Association, which exists not as a thing apart but as a federation of state and territorial medical societies, cannot do this job alone, from Chicago headquarters. For every problem, program or project which concerns this House of Delegates and the Chicago staff, there must be similar parallel effort on the state and local level. For example, Dr. Allman has mentioned that the AMA recently joined with the American Hospital Association, American Dental Association and American Nursing Home Association in forming the Joint Council to Improve the Health Care of the Aged. By the same token, every state and county medical society should have an active, working Committee on Aging, and suggested guides for such committees are available from Association headquarters.

WASHINGTON OFFICE

One of our national problems is to reevaluate our entire legislative situation—not only with respect to policies but also with regard to liaison and informational efforts. This will probably involve a reorganization of our Washington Office. Here again is a subject which demands the best thinking in medicine today, and which also requires a solid, grass roots foundation for effective work at the state and county levels.

STATES RELATIONS

To many individual physicians, and even to some medical society personnel, the AMA seems to be a distant organization with which they have little contact. To correct this situation, your AMA intends to expand its states relations and make every effort to strengthen the bonds between all levels of medical organization—national, state and local.

MEDICAL RESEARCH

Another problem which is worthy of the profession's careful attention is how to give higher priority, more money, and better coordination to the Association's research program. To discharge fully our obligations to medicine and the public, we must find better ways and means of promoting the most useful kinds of research in all aspects of our work—basic science, clinical and medico-economic.

NEW TALENT

However, in the final analysis—regardless of what kind of problem or issue we are facing—the real strength of the AMA lies with its individual members. I personally believe that it is incumbent upon every doctor to participate actively in the affairs of his local, state and national medical organization. All of us must work more intensively to get the best possible men more active on all levels. Your officers and management want to see the widest possible representation on AMA committees. As another personal suggestion, I would urge every medical society to bring to the attention of your officers, trustees and general manager the high qualities of the best men available for such duties. In short, medicine today needs men who are willing to give not just time or money—but also dedication and inspiration.

Medicine today is more alert than ever before to changing times and new demands. But it also needs the best brains available, and the greatest possible wisdom, to adapt medicine's finest ethics and traditions to the modern framework of medical economics.

The year ahead will undoubtedly bring us many problems and challenging opportunities. To help solve the problems and accept the opportunities, in a way serving the best interests of both the profession and the public, I pledge you my time, energy and devotion.

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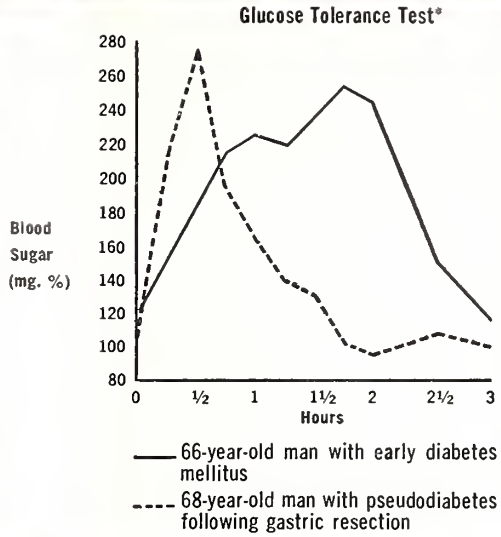

*Constam, G. R.: Northwest Med. 56:919, 1957.

besides diabetes, what diseases may cause symptoms of polyuria, polydipsia, increased fatigability and loss of weight?

Various renal diseases with isosthenuria, portal obstruction, functional dipsomania, hyperparathyroidism, acromegaly, primary aldosteronism, chronic mercury poisoning, hypervitaminoses A or D, Hand-Schüller-Christian lipoidosis, fructosuria, pentosuria and sucrosuria.*

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President's Page

I just want to add my two cents worth to the wise decision made by our committee planning the scientific part of the MSMA's convention in Kansas City next spring.

The committee, headed by Dr. John A. Growdon of Kansas City, is requesting that MSMA members who have papers they might present get in touch with the committee through the Association office.

Now this is a good idea! Not that we have not already asked several Missouri physicians to appear on our program. But this gives us a chance to hear from some more fellow Missourians who are working up some good papers. As we all know, it is impossible for any one man or any one committee to know everything that is going on throughout a state in the way of research. So here is a good chance for you to help out your committee and give us a good scientific program next April 5 through 8.

The committee members and I are hoping that they receive enough requests to appear on the program to insure them sufficient papers to select those that will give a varied program.

Judging by the number of Missouri physicians that appear on national and other state programs, we have been letting a lot of good talent escape. You can help us correct this by getting in touch with us before October 15. That is the deadline set by the committee for consideration of articles. Realizing that you might not have your proposed article completed, the committee has decided it can get along at that time with just the title and an abstract.

Dr. Growdon reports that the balance of the program is shaping up fine. Several out-of-state speakers who are national leaders in their particular fields already have accepted invitations to appear. There, of course, will be instruction courses again, although fewer in number than last year. Panels on timely subjects and clinical pathologic conferences also are scheduled.

All of this coupled with more good scientific papers from our own members will give us an outstanding program that will have appeal.

Guest Editorial

J. H. Keim, M.D., *Cape Girardeau*

The working wife or working mother is like the automobile—here to stay. Many factors influence this, among which there are three that have a lot to do with women working today. First, many household duties of the past have been taken over partially or wholly by results of the machine age —such things as the washer, dishwasher, disposal, vacuum cleaner, etc. are in this category. And such services as laundry, drycleaning, frozen and canned food, precooked meals, all give the woman more free time than she ever had before. Second, the presence of these items has become more and more accepted as part of our standard of living—so much so that to attain them the woman must work to help pay for them. And third, during World War II, working women became a patriotic necessity to replace manpower gone to the military service, thereby establishing a trend or pattern that, good or bad, remains with us.

The old saw that says "Woman's place is in the home" is as dead as the dodo bird. American women, at least, ignore it like a birthday. A Census Bureau survey of the nation's labor force, recently released, reveals some interesting statistics. Three out of every ten American wives and almost 50 per cent of single women are working outside the home. Altogether, women make up about a third of the nation's total labor force and more than half of these women are married. The number of working wives has risen by five million, or nearly 60 per cent in the last ten years; last year there were 12.7 millions in the labor force compared to 7.5 million in 1947.

This simply translates into figures and per cents what most of us have vaguely, though not so acutely, been aware of for some time. One has but to walk through a few stores, or observe at the end of a day the work force leaving from many factories and office buildings to appreciate the fact that many women work outside the home. There are many reasons why single women may want to work, and most of these reasons are laudable and wise. So far so good. From this, the possibilities to editorialize or write sermons are legion. I chose to discuss the effect on the home life, of working married women, particularly mothers. Before going any further, let me say I fully realize the unfairness and the fallacy of attempting to apply the yardstick of generalities to individual and personal instances. Undoubtedly many mothers must work to provide the bare necessities of life for the family. Many work in their early married life with a definite goal in view—to aid in the attainment by the husband of greater potentials later in life. Actually each case of a working mother must be decided on its own peculiar problems and its own individual merits.

It has always been my contention that being a mother and a housewife could and should be a full time job. Certainly mothers of children of the age group from 1 year through high school have a tremendous responsibility to the home if they will just accept it. It is impossible for me to itemize the innumerable, hour-by-hour, day-by-day problems and chores of a mother who actively runs her household. I cannot say that a working mother misses out on this or that particular obligation to her home and family. There are so many intangibles that go to make up a well rounded happy home for a family—including mother, father and children. A child frequently needs a sympathetic ear, counsel and understanding of his parents when he has troubles. Equally important for the child is the parents' interest and appropriate praise when he has accomplished something. A husband, at the end of a hard day, may be unduly irritated and worried over some real or fancied problem. A mother and wife at home is capable of greatly relieving the husband's worries and of soothing his irritable nerves. Then both the husband and wife are better equipped, mentally and emotionally, to deal with the child's problems. A mother home from work, also tired and irritable, may not accomplish this nearly so well. In fact she may aggravate matters and set off a sort of chain reaction in which all the members of the family become more alienated and antagonistic to each other. In a growing child, especially an adolescent, this may be extremely important. These are some of the intangibles that as so difficult to enumerate and

1959 ANNUAL SESSION

April 5, 6, 7, 8, Kansas City

The Committee on Scientific and Postgraduate Work invites members to submit titles and abstracts of papers they might present at the 1959 Annual Session. The Committee will select those that can be used appropriately in the program.

catalog. All of these things are integral parts of the ideal home life where love and affection, respect, understanding and unselfishness abound among all the members of the household. It is the lack or the unbalancing of some of these personality and character attributes that is so much more important in producing broken homes and delinquent children than is the lack of material wealth.

There is much more to a home than three meals and a place to sleep—you can get that in any hotel or boarding house. Children are not born delinquent or problem children. They develop these personalities and characters as they grow up. The character of their home life has a dominant role in the formation of their personality, I believe a more dominant role than their playmates and their school life. Therefore I feel that anything that interferes with proper home and family life may be a deterrent or a warping factor in the development of a child. One may cite examples of fine young people with well rounded personalities, of good moral character, who have been reared in a home where the mother works outside the home. Also examples may be cited of juvenile delinquents and misfits who have come from homes where mother did not work. Both of these citations, though perfectly true, do not invalidate the argument against mothers working out of the home. Some children will develop to enviable adults in spite of home life. And the family and home life may go to pot, regardless of the fact that the mother holds no outside job. Other factors in the home may tend to create miserable and unlikely environment for the upbringing of a child. It has been my contention that the underprivileged children may well come from a home with ample material wealth but poor in those attributes of love and affection, respect and unselfishness.

"The mystical heart of a child is a precious and beautiful thing. It is marred only by wounds of a thoughtless and not too intelligent world. In a physical sense the heart is a tough organ; a marvelous mechanism that, mostly without repairs, will give valiant pumping service up to a hundred years. In an emotional sense, it is susceptible to wounds of indifference, thoughtlessness and neglect, and during episodes of illness is especially vulnerable. The heart of a child is mysteriously molded by parents, teachers, playmates and all those with whom it comes in contact. Physicians wish during those short but violent episodes of illness to avoid wounds that will leave irreparable scars. I am convinced that the heart of a child, sunned by love, security and understanding, will be able to withstand the storms of illness and pain."—"The Heart of a Child" —Potts, J.A.M.A., June 1956.

When a mother works she must of a necessity relegate to a "babysitter" a goodly part of the responsibilities to her children. No babysitter, be it aunt, uncle or grandparent, is a good substitute for the mother.

The women who make a full-time job of being housewife and a mother may contribute greatly of those intangibles that go to make up a well adjusted, happy and secure home. However, her contribution is a reciprocal thing, for she in turn receives from her family a joy, a sense of accomplishment, and a love that well nigh passes all understanding.

Polio Hits the Unprotected

Two days after the following editorial ran in *The Kansas City Star* a 4-year-old girl died of poliomyelitis. The child had not received polio vaccine. Hers was the first polio death of the year in populous St. Louis County. The editorial:

The battle against infantile paralysis is being won. In the three years since the Salk vaccine was pronounced safe and effective, the retreat of the crippling, killing disease has been spectacular.

In the United States in 1955 there were nearly 8,000 paralytic cases. In 1956 there were fewer than 6,000 and last year the toll dropped under 2,000. The vaccine has brought similar reductions in deaths and milder attacks of polio that don't paralyze.

Locally, there have been no cases reported so far this year. Last year there were 23 cases in the entire Kansas City area compared to 103 in 1956. With very few exceptions the victims had not been vaccinated.

Polio, of course, is unpredictable. The season is late in starting this year, possibly because of the cool, wet weather. Eventually the disease will arrive to seek out those who are unprotected.

With the vaccine available to everybody it is almost inconceivable that millions of persons have not been immunized. Simply through apathy, these people are taking an unnecessary risk of death or of life in a wheelchair. Three simple, inexpensive shots and a few minutes in a doctor's office are the easy alternative.

BIBLIOGRAPHY ON STAPHYLOCOCCAL INFECTION

The National Library of Medicine has compiled a lengthy bibliography on staphylococcal infection, which, it is hoped, may be of value to both private and public health physicians who are engaged in combatting the increased incidence of antibiotic resistant staphylococcal infection in the home, community and hospital. The bibliography will be sent at no cost on request to National Library of Medicine, 7th St. and Independence Ave., S. W., Washington 25, D. C.

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Musings of the Field Secretary

The Third Annual Spring Clinical Conference of the University of Missouri was held at the Medical Center in Columbia on Wednesday and Thursday, May 14 and 15. This Conference was sponsored by the University of Missouri School of Medicine, the Missouri Academy of General Practice and the Missouri Heart Association.

Dr. Hagemann spoke as one of the panel.

The two-day session this year was acceptable for twelve hours of Category I Postgraduate Credit for members of the Missouri Academy of General Practice. A number of the Academy members were present for this outstanding program.

The meeting broke for lunch.

The Annual Dinner Meeting of the Missouri Heart Association was held at the Tiger Hotel Wednesday evening. Dr. James V. Warren, of the Duke University School of Medicine, guest speaker for the Heart Dinner, also appeared on the Thursday program at the Medical Center.

Guest speakers included Dr. Daniel F. Downing, Philadelphia; Dr. Paul O. Hagemann, St. Louis; Dr. Thomas Hamilton, Kansas City, Kansas; Dr. William D. Perry, St. Louis; Dr. Earl L. Loyd, Jefferson City; Dr. F. Stanley Morest, Kansas City; Dr. James V. Warren, Durham, North Carolina. In addition to the guest speakers a number of faculty members of the Missouri University School of Medicine appeared on the program.

The sessions were particularly designed for the general practitioner. A variety of presentations were offered including panel discussions, a CPC, lectures and demonstrations. On both Wednesday and Thursday luncheon sessions were held at which speakers on the respective morning programs appeared on panels to answer questions directed to them from those attending the morning program. Coffee breaks were used to promote a bit of relaxation and for purpose of getting acquainted. Some of the doctors from over the state, who were in attendance, used this meeting to look over the medical school set-up for the first time.

Discussions were also informal.

A Clinical Conference of this type is a valuable contribution to the postgraduate educational opportunities for private practice as well as for the house staff and medical students at the University Medical Center.

There was no registration fee for any part of the Clinical Conference.

The Third Ozark Empire Cancer Conference was held at the Kentwood Arms Hotel in Springfield on Friday afternoon and evening, May 23.

This Conference was jointly sponsored by the Greene County Medical Society, the Missouri Division of the American Cancer Society, the Missouri Academy of General Practice, and the Missouri Division of Health. No registration fee was entailed, and the Conference was acceptable for five hours of Category II Postgraduate Credit for members of the Academy of General Practice.

Some seventy-five physicians from Southwest Missouri attended the Conference and were privileged to hear four excellent discussions on cancer problems by Drs. John H. Christianson, Frank L. Allbritten, Jr., William L. Valk, and Francis A. Mantz, Jr., all from the University of Kansas School of Medicine.

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Dr. Elkins opened the meeting.

Each of these physicians gave a formal presentation in the afternoon session and then appeared on a panel in the evening at which questions were answered that had been directed to them from the afternoon audience.

The conference included a dinner meeting.

The evening festivities consisted of a social hour with the added attraction of suitable music, then dinner and the evening panel discussion.

AMERICAN CANCER SOCIETY

Officers and speakers were seated at the head table.

The Greene County Medical Society handled this entire Conference in commendable fashion.

NEW MEMBERS

Bernstein, Aaron M., 7248 Cornell Avenue, University City. St. Louis County Medical Society.

Beyer, Eugene F., M.D., 1736 Blue Jay Cove, St. Louis 17. St. Louis Medical Society.

Bonney, Samuel, M.D., St. James. Mid-Missouri County Medical Society.

Curts, Calvin J., M.D., 1124 Professional Bldg., Kansas City. Jackson County Medical Society.

Daum, Harold F., M.D., 830 Argyle Bldg., Kansas City. Jackson County Medical Society.

Ernst, Richard E., M.D., 100 Beaumont Medical Bldg., St. Louis 8. St. Louis Medical Society.

Eubank, William Y., M.D., General Hospital No. 1, Kansas City. Jackson County Medical Society.

Finger, Donald H., M.D., 4652 Maryland Avenue, St. Louis 8. St. Louis Medical Society.

Friedrichs, Vernon D., M.D., Pilot Grove. Cooper County Medical Society.

Gandlmyer, Jack M., M.D., 7334 Forsyth, St. Louis 5. St. Louis Medical Society.

Gollwan, Edward L., M.D., 7101 Princeton, St. Louis 5. St. Louis Medical Society.

Guasch, Joseph S., M.D., State Hospital, Mount Vernon. Ozarks County Medical Society.

Hagadon, Jack L., M.D., St. Louis County Hospital, Clayton. St. Louis County Medical Society.

Hansen, David M., M.D., 1608 Oriole Lane, St. Louis 17. St. Louis Medical Society.

Hodges, Fred J., III, M.D., 510 S. Kingshighway Blvd., St. Louis 10. St. Louis Medical Society.

Key, James S., M.D., Springfield Medical Bldg., Springfield. Greene County Medical Society.

Merryman, Charles H., M.D., Senath. Dunklin County Medical Society.

Montgomery, Austin F., M.D., 6244 Oakland, St. Louis 10. St. Louis Medical Society.

Purcell, Elmer M., M.D., 307 Professional Bldg., Springfield. Greene County Medical Society.

Roter, Alexander M., M.D., St. Charles. Lincoln-St. Charles County Medical Society.

Scott, Horace W., M.D., 1328 McCutcheon, St. Louis 17. St. Louis Medical Society.

Watson, Cecil M., M.D., Odessa. Lafayette-Ray County Medical Society.

OSTEOPATHS MAY CHANGE CODE

Delegates to the annual session of the American Osteopathic Association were expected to consider modification of their code. If certain tenets pertaining to manipulation are dropped or modified, some of the barriers between the AMA and the AOA will be down.

The 5-day convention in Washington opened July 14. It was the 62nd for the osteopaths.

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News

Milton E. Kirkpatrick, M.D., Kansas City, was leader of the Mental Hygiene Workshop at the Conference on the Handicapped in Missouri June 19-21 at the Hotel Statler, St. Louis.

A memorial fund honoring the late **Frank Randall Teachenor,** M.D., Kansas City, has been established. Under the organization of a Teachenor Memorial Committee contributions are being received to build a memorial operating theater in the new Research Hospital Medical Center, Kansas City. It was decided the fund was to be applied to a facility that would maintain a working memorial in the community which Dr. Teachenor served.

William A. Sodeman, M.D., former chairman of the department of medicine at the University of Missouri School of Medicine, has been named Dean of the Jefferson Medical College in Philadelphia.

Recently honored at a testimonial dinner in Festus "For Unselfish Service and Devotion to the Needs of the People of Our Community" was **Bertalan Bolgar,** M.D., who has practiced in Festus 21 years. More than 300 friends attended.

An oil portrait of **Glover H. Copher,** M.D., professor of clinical surgery at Washington University School of Medicine and an attending surgeon at Barnes Hospital, St. Louis, was presented to the hospital on May 28 by a group of the doctor's former patients. The portrait will be placed in the lobby of Barnes Hospital.

Missouri physicians appearing on the program of the 24th annual meeting of the American College of Chest Physicians in San Francisco, June 18-22 were **Richard J. Bing**, M.D., St. Louis, who appeared on a Forum on "Pulmonary and Cardiovascular Effects of Smoking," and Drs. **Henry C. Sweaney**, Mount Vernon, **David F. Gorelick** and **Fred C. Coller**, Springfield, who participated in a scientific session on "Implications of Recent Findings on the Pathology and Pathogenesis of Benign Pulmonary Histoplasmosis."

Cecil M. Kohn, M.D., Kansas City, was named president-elect of the American College of Allergists at its meeting in Atlantic City in April. **Orval R. Withers,** M.D., was president during the last year.

Mr. Oscar W. Rexford, St. Louis, formerly vice president and operating manager of St. Louis Public Service Company, was appointed director of Group Hospital Services, Inc., which operates the St. Louis Blue Cross Plan, effective June 1.

Plans for construction of a medical arts building on nine lots by four Carthage doctors were disclosed at a Carthage City Council session, June 23. The doctors are **George H. Wood,** M.D., **W. T. McNew,** M.D., **Fred S. Wetzel, Jr.,** M.D., and **Charles H. Isbell,** M.D. The medical center is to include offices and reception rooms for the four physicians, laboratory and x-ray rooms.

William H. Olmsted, M.D., St. Louis, was awarded the American Diabetes Association's Banting Medal, the highest honor it can confer, at that organization's annual meeting in San Francisco. The award was made upon his retirement as treasurer of the association after six years in that post.

The Central Missouri chapter of the American College of Surgeons, at a meeting in Columbia, elected **Henry Durst,** M.D., Fulton, as their new president. Dr. Durst succeeds **Avery Rowlette,** M.D.

"Pediatrics and Its Relation to Pharmacy" was the subject of a talk by **E. J. Schwartz,** M.D., Springfield, at the regular monthly meeting of the Springfield Pharmaceutical Association.

The Distinguished Service Award of the University of Missouri's Alumni Association was received by **Frank G. Mays,** M.D., of Washington, at the University's 116th Commencement.

An appointment as a fellow in the American College of Allergists was received by **T. Reed Maxson,** M.D., member of the staff at the Warrensburg Medical Center.

The acute problem of caring for the growing number of aged people in Missouri was presented to Inter-City Kiwanis clubs at their regular meeting in Fairmont by **H. M. Hardwicke,** M.D., acting director of the Division of Health for the state of Missouri.

Mayor Arthur J. Meers appointed **Joseph F. Chiarottino,** M.D., as president of the St. Joseph aviation board at an organizational meeting May 27.

The *Shelbyville Herald* on April 30 carried a picture and article about **P. C. Archer,** M.D., who had practiced for fifty years, forty-eight of which had been in Shelbyville.

Edward W. Dempsey, M.D., St. Louis, professor of anatomy, has been named Dean of the Washington University School of Medicine.

A Columbia physician, **Roland Ladenson,** M.D., was chosen president-elect of the Missouri Heart Associa-

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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tion. He will serve in that capacity for one year and then will assume the responsibility of the presidency.

Hospital Administrators honored **F. R. Bradley**, M.D., at a tenth anniversary meeting of the first graduates on June 4.

Marion C. Walton, M.D., Festus, has purchased the former Willow Springs General Hospital and will convert it into a clinic, which will be called the Walton Clinic.

M. Pinson Neal, M.D., professor of pathology at the Missouri University Medical Center, was honored by faculty and students at precommencement exercises in the Medical Center Auditorium. He became "Professor Emeritus" at the commencement exercises June 6.

"Keep the Blood Stream Flowing" was the subject of a talk by **A. Graham Asher**, M.D., Kansas City, at the monthly meeting of the Excelsior Springs Rotary Club.

Plans are underway to honor **P. W. Jennings**, M.D., of Canton on August 17 for 50 years as a practicing physician in Lewis County.

Frederick J. McCoy, M.D., was elected president of the Kansas City Surgical Society at a meeting on May 28.

Richard L. Sutton, Jr., M.D., attended the meeting on June 12 of the Wyoming State Medical Society at Jackson Lake Lodge, giving talks on "Cancer of the Skin" and "Dermatological Problems."

The son of Dr. **C. A. McBurney**, Slater, Dr. Alex A. McBurney, was awarded the D. C. Guffey prize in the history of medicine on Student Recognition day at the University of Kansas Medical Center in Kansas City, Kansas. The title of his paper was "The Man Against Malaria" and concerned the life of Dr. John Sappington of Saline County fame in relation to his quinine pills. In doing research on his paper Dr. McBurney uncovered the first new evidence on the pills to be discovered in 120 years.

It was announced on June 13 that **William R. Galeota**, M.D., is to head the University Student Clinic, Columbia, effective September 1, 1958. Dr. Galeota has been assistant at the student clinic since July 1957.

Carl V. Moore, M.D., chairman of the board of medicine at the Washington University School of Medicine, has been appointed to the National Advisory Arthritis and Metabolic Diseases Council. He will serve through September 1962.

A panel of doctors discussed medical subjects at the regular meeting of the Rotary Club, Independence. **Wallace Stacey**, M.D., Independence, was moderator. Other physicians participating were Drs. **Norman Makous**, **T. Reid Jones** and **Warren Wilhelm**, Kansas City.

Samuel C. Bukantz, M.D., former assistant dean of of the Washington University School of Medicine, has accepted a position as medical and research director of the Jewish National Home for Asthmatic Children and Children's Asthma Research Institution at Denver. Dr. Bukantz also will be associate professor of clinical medicine at the University of Colorado School of Medicine. His new appointment was effective July 1.

DEATHS

Post, Lawrence T., M.D., St. Louis, a graduate of Johns Hopkins University School of Medicine, 1913; member of the St. Louis Medical Society; aged 71; died May 13.

Cornell, John C., M.D., St. Louis, a graduate of St. Louis University School of Medicine, 1909; member St. Louis Medical Society; aged 72; died May 17.

Ames, Alfred C., M.D., Mountain Grove, a graduate of Starling Medical College, Columbus, Ohio, 1889; member of the South Central Counties Medical Society; aged 93; died May 28.

Bohrer, Edward Royse, M.D., Jefferson City, a graduate of Washington University School of Medicine, 1934; member of the Cole County Medical Society; Secretary of the Missouri State Medical Association; aged 49; died June 3.

Duckett, Claude E., M.D., Lamar, a graduate of the University Medical College of Kansas City, 1909; member of the Barton-Dade County Medical Society; aged 72; died June 3.

DelVillar, E. J., M.D., St. Joseph, a graduate of the University of Santo Domingo, 1948; member of the Buchanan County Medical Society; aged 35; died June 6.

Platt, Paul C., M.D., Kansas City, a graduate of the University of Nebraska College of Medicine, 1932; member of the Jackson County Medical Society; aged 53; died June 6.

Cummins, William W., Jr., M.D., Kansas City, a graduate of the University of Kansas School of Medicine, 1936; member of the Jackson County Medical Society; aged 47; died June 27.

Jones, Garnett, M.D., St. Clair, a graduate of Barnes Medical College, 1907; member of the St. Louis County Medical Society; aged 91; died June 30.

Martin, Albert J., M.D., East Prairie, a graduate of Beaumont Hospital Medical School, 1896; member of the Semo County Medical Society; aged 88; died July 3.

Helbing, Harry Hugh, M.D., St. Louis, a graduate of the National University of Arts and Sciences, 1895; member of the St. Louis Medical Society; aged 89; died July 4.

Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met May 8, at the Strand Hotel, Chillicothe. There was a fine attendance of members, Auxiliary members and visitors.

After the introduction of the visitors the scientific program was presented by Dr. Milton Katz, internist, Kansas City, who discussed "Clinical Observations With a Group of Diabetics Under Treatment With Orinase." Dr. Katz had used Orinase in a large number of cases. He gave the results and commented on the doses and indications in various types of diabetes. This was an interesting and scientific presentation followed by questions and answers.

Minutes of the last meeting were read and approved. There being no further business the Society adjourned.

Meeting of June 12

The Grand River Medical Society held its annual golf tournament at the Chillicothe Country Club on Thursday afternoon, June 12. The "Calloway System of Handicapping" was used.

In addition to the doctors, a number of druggist and pharmaceutical representatives took part in the tournament.

Following the rigors of the afternoon an enjoyable evening program climaxed the occasion. Following the social hour and smorgasbord dinner, prizes were awarded the winning golfers. First prize went to Dr. Dixon of Brookfield, second to Dr. Vandiver of Chillicothe, third to Dr. Conrad of Chillicothe and fourth to Dr. Clark of Trenton.

This annual golf tournament and its subsequent evening festivities has become a high-light in the Grand River Medical Society yearly series of programs.

E. A. DUFFY, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Dr. Marvin Camel, St. Louis, was guest speaker at a meeting of the Chariton-Macon-Monroe-Randolph County Medical Society held at the Woodland Hospital at Moberly, on Thursday evening, May 8.

Dr. Camel spoke on "Use of Radioactive Gold in the Treatment of Cancer of the Cervix." He indicated that this form of treatment, which has been used at Washington University since 1950 and has shown promising results in the early stages of cancer when combined with surgery, is quite successful.

Those attending the meeting were Drs. Josephine D. Baker, W. Deward Chute, C. C. Cohrs, J. W. Fleming, Robert Hasson, L. E. Huber, A. P. Rowlette, Stanley R. Szymanski and Robert H. Young, Moberly; F. A. Barnett, Paris; James E. Campbell and D. E. Eggleston, Macon; P. V. Dreyer, Huntsville; G. W. Hawkins, Salisbury; D. D. Stuart, Brunswick, and C. C. Weger, Keytesville.

ROBERT H. YOUNG, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

A meeting of the Jefferson County Medical Society was held Tuesday evening, May 20, at the Jefferson County Memorial Hospital.

The program was given by Dr. Frederick Barnes, St. Louis, Red Cross Area Medical Director, who spoke on "Disaster and Emergency Medical Care."

JOHN F. RUTLEDGE, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

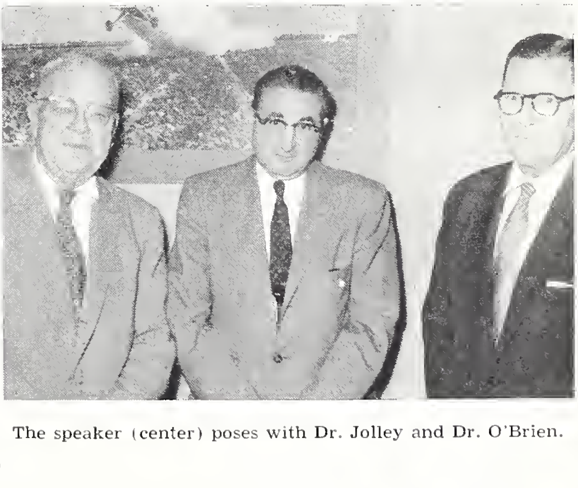
The regular meeting of the Audrain County Medical Society was held on Monday, May 19, at the Air Park Motel, Mexico.

The meeting was called to order by the President, Dr. Leonard L. Davis.

The application for transfer from Boone County Medical Society of Dr. Ned Rodes was read, and it was voted that Dr. Rodes be accepted into the Audrian County Medical Society.

The guest speaker for the evening was E. H. Parsons, M.D., St. Louis. Dr. Parsons gave an interesting talk on "Psychiatry in General Practice."

The following doctors were present: Drs. Leonard L. Davis, Thomas Dwyer, Lawrence Epple, Kathryn Epple, Charles Garcia, J. F. Jolley, Ben Jolly, Harold Lankford, Harry F. O'Brien, David Rouse, Ed S. Wallace, Mexico; L. L. LaChance, Centralia; A. K. Baur



The speaker (center) poses with Dr. Jolley and Dr. O'Brien.

The group remained around the table for the meeting.

and H. G. Freund, Fulton; Mr. Ray McIntyre, St. Louis.

Harold D. Lankford, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

Joint Medical Societies Meeting

A joint dinner meeting of the Henry, Johnson, Pettis, Saline, Lafayette-Ray and adjacent County Medical Societies and the doctors' wives was held Wednesday night, May 21, at the Riggles Cafe, in Warrensburg. This pleasant occasion began with a social hour, then dinner, and two separate programs, one for the doctors and one for the doctors' wives.

Michael Bernreiter, M.D., Kansas City, spoke to the doctors on the subject "Electrocardiograph Interpretation," during which time the ladies were being entertained with a special program.

Dr. Bernreiter presented an excellent discussion of his subject and it was so enthusiastically received that he has been requested to appear before the group again and discuss other phases of this broad subject.

The Johnson County Medical Society and its Woman's Auxiliary were hosts and hostesses for this meeting.

C. G. Stauffacher, M.D., *Councilor*

West Central Missouri Medical Society

Carl R. Ferris, M.D., Kansas City, spoke at the dinner meeting of the West Central Missouri Medical Society on Thursday evening, May 8, at the Inn Hotel in Butler. His subject was "Antibiotics." This was a subject quite interesting to all and Dr. Ferris presented it in a most satisfactory manner.

This meeting was also attended by the wives of the doctors, and was initiated by a social hour and a dinner.

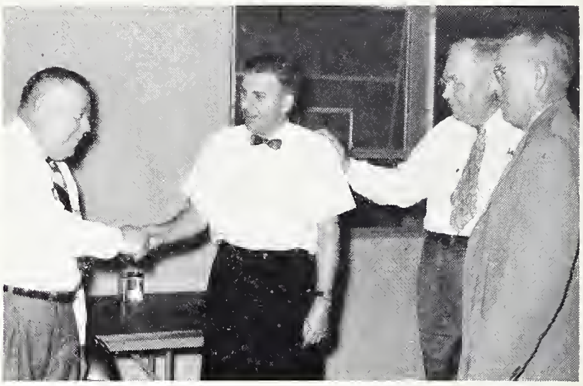
J. C. Moody, M.D., *Secretary*

Meeting of June 12

Twenty-two physicians attended a dinner meeting of the West Central Missouri Medical Society at the Country Club in Nevada on Thursday evening, June 12.

A golf tournament had been scheduled at the club for the afternoon, but due to threatening weather this was not consummated.

The evening festivities were initiated by a social hour, followed by a buffet dinner and an interesting and informative scientific discussion. E. A. Quer, M.D., Kansas City, spoke to the group on the "Differential Diagnosis of Masses in the Right Lower Abdomen and Their Management." Following his formal presentation, a lively general discussion of the subject was carried on, with audience participation.



Dr. Love shakes hands with the speaker while Dr. Wray and Dr. Luter look on.

The meeting was well attended

The next meeting of the society will be held at Harrisonville, the second Thursday night in September.

Jack Moody, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Ozarks Medical Society

The Ozarks Medical Society met Tuesday evening, May 13, at 8:00 p.m. at Shadow Rock Park Hotel, Forsyth, as the guest of Dr. Threadgill. Twenty-two members and guests were present. The program consisted of a discussion by Dr. W. W. Tillman, Spring-

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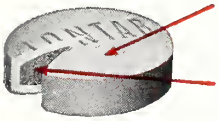

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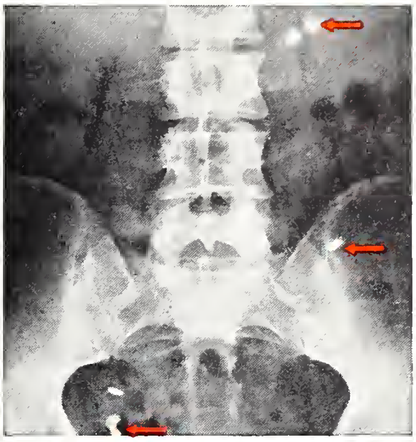
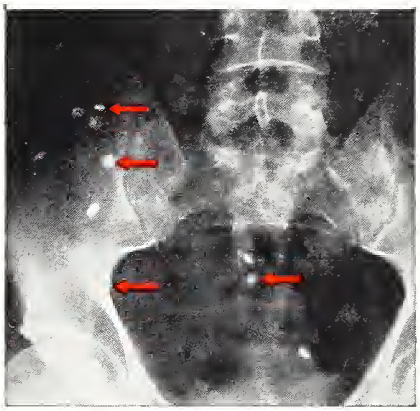
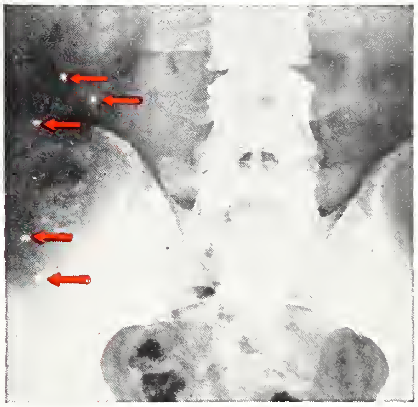
2 hours Lontabs are in the stomach and small bowel. Release of core substance is well under way.



4 hours Lontabs are in the ileum and cecum as core has steadily eroded.



8 hours Lontabs are still visible as substance of core continues to be released.



field, Councilor, on the proceedings at the State Meeting and future plans. We were also honored with the presence of the President of the Green County Medical Society, Dr. R. F. Elkins, who addressed the Society briefly.

At the business meeting Dr. P. A. Holmes, Mt. Vernon, was voted an honor member, retroactive to January 1, 1956.

Dr. Joseph Guasch was approved by the credentials committee and application approved for membership in the Society.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A joint dinner meeting of the members and their wives of the local Missouri Bar Association with the Mid-Missouri Medical Society and its ladies was held at the Edwin Long Hotel, Rolla, Thursday evening, May 15, 1958.

Dr. Smolik was one of the speakers.

The speaker held the attention of the group.

This important affair began with a social hour followed by a subscription dinner, and then the formal program.

The program presented Attorney J. Edward Gragg, St. Louis, Chairman, Medical-Legal Committee of the Missouri Bar Association, who spoke on "What Constitutes a Good Medical Report From the Attorney's Viewpoint," and Dr. Edmund A. Smolik, St. Louis, Chairman, Medical-Legal Committee of the Missouri State Medical Association, who spoke on "Medical-Legal Problems From the Physician's Viewpoint." This was an unusual program that covered a subject which is of considerable interest to both physicians and lawyers in this area.

Both speakers covered their particular subject in excellent fashion and the sixty people in attendance were lavish in their praise of this special program.

The lawyers and their wives in attendance were introduced individually by one of the Rolla lawyers, while the physicians and their wives were all introduced by Dr. J. H. Summers, Lebanon, Councilor of the Ninth Councilor District of the Missouri State Medical Association and present Chairman of the State Association Council.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met at Tiny's Steak House near Thayer, on Wednesday, May 28.

Dr. J. E. Barnett and Dr. E. M. Cooper, Jonesboro, Arkansas, were guest speakers of the evening. Dr. Cooper spoke on "Malignant Lesions of the Colon" and illustrated his talk with numerous slides. Dr. Barnett spoke on "Treatment of Fractures of the Hip" and he showed several x-ray films to demonstrate his methods and procedures of treatment. Both men presented interesting talks and they were much enjoyed by the members present.

Following the scientific program a short business meeting was held with Dr. M. L. Fowler, West Plains, presiding. Dr. Rollin H. Smith, West Plains, was elected Secretary of the Society, the office having been made vacant by the recent death of our former secretary, Dr. A. C. Ames, Mountain Grove. Business matters pursuant to the welfare of the society were discussed. The secretary was instructed to send Dr. C. F. Callihan a telegram wishing him a complete and speedy recovery. At the time of our meeting Dr. Callihan was a patient in Methodist Hospital, Houston, Texas.

The following guests were present: Dr. J. E. Barnett, Dr. E. M. Cooper, Jonesboro, Arkansas; and Dr. and Mrs. J. E. Lytle, Mammoth Spring, Arkansas.

Members present were Dr. and Mrs. A. T. Walker, Mammoth Spring, Arkansas; Dr. and Mrs. C. W. Cooper, Thayer, Missouri; Dr. and Mrs. M. L. Fowler, Dr. and Mrs. J. N. Wiles, and Dr. and Mrs. R. H. Smith, West Plains; Dr. and Mrs. R. W. Denny and Dr and Mrs. S. W. Connor, Mountain Grove; and Dr. and Mrs. D. E. Tiffany, Mountain View.

The meeting adjourned and the next meeting will be held in Mountain Grove on Wednesday, June 25, 1958.

Rollin H. Smith, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Dunklin County Medical Society

Thirty-five physicians covering a wide area of Southeast Missouri attended a medical dinner meeting at the

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'Cardilate' tablets shaped for easy retention in the buccal pouch

"...the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.:
Nitroglycerin and Other Nitrites in the Treatment of
Angina Pectoris, Circulation (Jan.) 1958.

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BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Cotton Boll Hotel, Kennett, on Tuesday evening, May 6.

The evening festivities began with an enjoyable social hour, dinner, and then the scientific program.

George J. R. Wulff, Jr., M.D., St. Louis, presented the scientific program, speaking on "Common Problems in Gynecology and Their Management." Dr. Wulff gave a most interesting discussion of this subject.

Members of the Missouri Academy of General Practice who attended this meeting are entitled to Category I Postgraduate Credit toward their Academy requirements.

It was a pleasure to have Dr. Wulff with us, and we will most assuredly invite him back.

E. L. Spence, M.D., *Secretary*

The meeting was well attended.

Mineral Area County Medical Society

On Thursday night, May 22, the Mineral Area County Medical Society held its regular monthly meeting in the Clinic Building of the State Hospital in Farmington.

The program for the evening was cosponsored by the Missouri Academy of General Practice and the Cardiovascular Section of St. Louis University. It comprised a panel discussion on "Recent Advances in the Management of Arteriosclerotic Heart Disease" by Drs. James P. Murphy, Richard Dames, and John Inkley of St. Louis.

During the formal discussion, the panelists offered to answer questions, and a number were asked.

This was an interesting and informative program and was appreciated by all of those in attendance.

Jack L. Foster, M.D., *Secretary*

Dr. Wulff was the speaker.

Pemiscot County Medical Society

A joint meeting of the Pemiscot County Medical Society and the Pemiscot County Memorial Hospital staff was held at the Hospital in Hayti, on Thursday night, May 8. The evening session began with dinner.

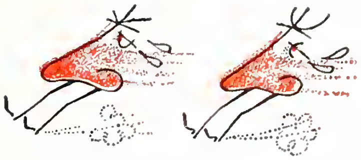
Following dinner, O. W. Cook, Caruthersville, program chairman for the meeting, introduced Ray McIntyre, Field Secretary of the Missouri Medical Association, who discussed some of the hospital staff organizational problems in various county hospitals over the state of Missouri. A general discussion among those present followed his remarks.

Certain changes in the present staff by-laws of the Pemiscot County Hospital were agreed upon at this meeting, and will be recommended to the Hospital Board.

John K. Duckworth, M.D., *Secretary*

The meeting was informal.

running noses . . .



and other hay fever symptoms

TRIAMINIC stops **rhinorrhea**, congestion and other distressing symptoms of summer allergies, including hay fever. Running nose, watery eyes and sneezing are best relieved by antihistamine *plus* decongestant action—systemically—with TRIAMINIC.

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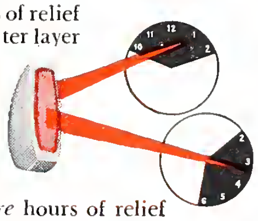
TRIAMINIC brings relief in minutes—lasts for hours. Running noses stop, congested noses open—and stay open for 6 to 8 hours.

Triaminic provides around-the-clock freedom from allergic congestion with just one tablet t.i.d. because of the special timed-release design.

first—3 to 4 hours of relief
from the outer layer



then—3 to 4 *more* hours of relief
from the inner core

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Phenylpropanolamine HCl	50 mg.
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The Council

The Council met at the Coronado Hotel, St. Louis, June 7, 8, 1958, with J. H. Summers, M.D., Lebanon, Chairman, presiding. Those present were Drs. Summers, Leonard T. Furlow, St. Louis; B. M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Kenneth C. Hollweg, Kansas City; W. W. Tillman, Springfield; Ben M. Bull, Ironton; W. F. Francka, Hannibal; Ralph Perry, Kansas City; R. O. Muether, St. Louis; Joseph C. Peden, St. Louis; Durward G. Hall, Springfield; Charles R. Doyle, St. Louis; Oscar P. Hampton, University City; Edmund Smolik, St. Louis; H. M. Hardwicke, Jefferson City; Messrs. John H. Noble, Kennett; Hollister Smith, Lemoine Skinner, Bill Logan, Ray McIntyre, Tom R. O'Brien, and Miss Helen Penn, St. Louis.

Dr. Bohrer's Death

Dr. Stuart and Mr. McIntyre reported attending the funeral of E. Royse Bohrer, M.D., former Secretary, in Jefferson City, on June 6.

Minutes

Minutes of the Council meetings of April 13 and 16 were read as follows:

Sunday, April 13, 10:30 a.m.
Hotel Sheraton-Jefferson, St. Louis

Presiding: R. O. Muether, M.D., St. Louis, Chairman.

Present: Drs. Muether, Donald M. Dowell, Chillicothe; J. C. Creech, Troy; B. L. Murphy, Hannibal; B. M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Ralph Perry, Kansas City; W. W. Tillman, Springfield; J. H. Summers, Lebanon; Ben M. Bull, Ironton; W. S. Sewell, Springfield; W. F. Francka, Hannibal; Joseph L. Fisher, St. Joseph; E. Royse Bohrer, Jefferson City; Durward G. Hall, Springfield; Messrs. John W. Noble, Kennett; W. H. Bartleson, Kansas City; Lemoine Skinner, Ed Schneider, Bill Logan, Tom R. O'Brien, St. Louis.

Alcoholism Committee

The report of the Committee on Alcoholism was presented for the information of the Council.

Group Insurance

Mr. Logan gave the following report on group insurance:

The Council has received many requests from insurance companies to be allowed to submit proposals for group insurance coverage for the physicians belonging to the MSMA. In addition, the Council has received a few inquiries from MSMA members concerning the possibilities of such coverage. As of now, health and accident coverage are the only two protections offered under the auspices of the MSMA. The subject evidently is of national interest because the AMA is surveying state associations as to whether it should sponsor a group life insurance program. Therefore, realizing that some medical societies in Missouri already have arrangements of some type or another with insurance firms, the Council poses this question to the House of Delegates: Does the House believe the subject of expanding our group insurance coverage should be studied by the MSMA?

After discussion, on motion of Dr. Tillman, seconded by Dr. Stuart, it was decided to await a report from the AMA on its findings.

Workmen's Compensation

The report of the special committee to study Workmen's Compensation was presented to the Council for its information and approval for submission to the House, which was given.

House Agenda

Various subjects to come before the House of Delegates were discussed and it was stressed that Councilors would be present at Reference Committee meetings.

Wednesday, April 16, 1958
Hotel Sheraton-Jefferson, St. Louis

Presiding: W. F. Francka, M.D., Hannibal, President, called the meeting to order and asked for nominations for Chairman of the Council.

Those present at the meeting were: Drs. Francka, Perry, Dowell, Murphy, Creech, Stuart, Stauffacher, Hollweg, Tillman, Summers, Bull, officers and members of the Council; and Drs. Neilson, Hampton, Muether, Gunn, Benjamin, Sewell, Fisher, Mr. Noble, Mr. Skinner, and Mr. O'Brien."

Proxy Request

Arthur W. Neilson, M.D., St. Louis, asked to serve as proxy for Dr. Furlow and was asked to wait until there was an organized Council.

Officers Elected

Officers elected by nomination, second and vote, are as follows: Chairman of the Council, J. H. Summers, M.D., Lebanon; Vice Chairman, Donald M. Dowell, M.D., Chillicothe; Secretary, John I. Matthews, M.D., Jefferson City; Treasurer, R. O. Muether, M.D., St. Louis.

New Councilors

Dr. Perry introduced Kenneth C. Hollweg, M.D., Kansas City, Councilor from the 7th District.

Dr. Neilson presented a request signed by all St. Louis delegates asking that he be allowed to serve in the place of Leonard T. Furlow, M.D., St. Louis, new 3rd District Councilor, who had to leave the meeting. This was denied since there is no provision for any one to serve in the place of a Councilor. Dr. Neilson stated that Dr. Furlow had wished to place the name of George Thoma, M.D., St. Louis, in nomination for Treasurer.

Conference on Aged

Mr. O'Brien presented a letter from the AMA asking that a representative or representatives be sent to a five state conference in Omaha on May 25 on problems of the aged. On motion of Dr. Tillman, seconded by Dr. Perry, the chairman was asked to have some one represent Missouri at the conference.

West Plains Hospital

The situation at the West Plains Hospital, given in a letter from Dr. Callahan to Dr. Sewell, was discussed. On motion of Dr. Tillman, it was decided to refer the matter to the Committee on Hospitals and Professional Relations.

Civil Defense

The meeting planned for late April at which a 200-bed emergency hospital would be displayed was discussed. It was felt that this could not be done within the $150 set aside by the Council, that the Armory at Jefferson City would not be ready by that time and that further information from the AMA level was needed. On motion of Dr. Tillman, it was voted to suggest that no attempt be made to hold such a meeting until further information was received from the AMA.

AMA Delegates

A meeting of the committee of the Council with the AMA Delegates was reported. The need for funds for hospitality by the Delegates and the possibility of paying expenses of alternates were discussed. It was decided that up to $1,500 be made available for Delegates at AMA Sessions and that the question of paying expenses of alternates be referred to the Budget Committee.

Bank Resolution

A resolution to be presented to the Bank to show signatures of the new officers to be used was adopted.

Next Meeting

It was decided that the next meeting of the Council would be held June 7 and 8 in St. Louis.

On motion these minutes were approved.

JUNE 7, 8 MEETING RESUMED

Junior Membership

The change in the by-laws referring to junior members, adopted by the House of Delegates, MSMA, April, 1958, was read as follows:

"Junior members shall be limited to those members of component societies (1) who are serving a full-time internship or residency in a hospital approved by the Council on Medical Education of the AMA (2) and they shall continue as junior members for the first three years subsequent to the completion of any accredited service."

On motion of Dr. Muether, seconded by Dr. Francka, it was agreed that this should become effective on July 1, 1958.

Treasurer's Report

Dr. Muether reported on the finances of the Association and his report was accepted.

Dr. Muether moved that $30,000 be changed into the bond account of the Association and on second this was passed.

Field Secretary's Report

Mr. McIntyre reported on meetings that have been attended since May 1 and announced several meetings that will be held in the near future.

He presented a list of physicians who have located in Missouri towns of less than 12,000 since July 1, 1957, approximating 50 in number. He presented a new schedule that will be used in the preceptorship program of the University of Missouri. The periods to be used for this program are: January 19 to March 1, 1959; March 2 to April 14, 1959, and April 15 to May 27, 1959. He also presented a list of the preceptorship assignments of fourth year medical students of the University during 1957 and 1958.

Material on the Hill-Burton appropriations available from July 1, 1957 through June 30, 1958, was presented as follows:

Department of Health, Education and Welfare
($849,395,800)

Division of Hospital Facilities	Total $122,650,000

This division administers the federal aspects of both the original and expanded Hill-Burton programs. Total appropriations are divided into the following four categories:

Hill-Burton Original Program	$99,000,000

This appropriation, allotted to the states on the basis of population and per capita income, assists in the financing of new hospitals and related health facilities construction under the original Hill-Burton program. To date federal funds have partially financed approximately 3,170 projects, including 145,400 hospital beds, 695 public health centers, 21 state health laboratories and something in excess of 100 nurses' homes and training facilities. Since 1946, the inception of the program, federal contributions represent $852,000,000; when the sponsors' share is included, the total is $2,687,000,000.

Medical Facilities—Category Program	$21,000,000

The total allotted to the states this year on a population-per capita-income formula will assist in the financing of new construction under the 1954 amendments in four categories as follows: $6,500,000 for hospitals for the chronically ill and impaired; $6,500,000 for diagnostic centers, or diagnostic and treatment centers; $4,000,000 for nursing homes; and $4,000,000 for rehabilitation facilities. As under the original program, the federal share may range from one-third to two-thirds of the total project cost. As of July, 1957, a total of 344 projects had been approved divided among the four categories as follows: facilities for chronically ill (71), diagnostic-treatment centers (131), nursing homes (80), and rehabilitation facilities (62).

Hill-Burton Administrative Expenses	$1,450,000

This appropriation is used for administration, including salaries and expenses for the hospital survey and construction program for the federal headquarters and for eight regional federal offices.

Research	$1,200,000

Authorized in 1949 but not appropriated until 1955 is this item for research, experiments and demonstrations on utilization of hospital services, facilities and resources. The bulk of the money is assigned as grants to states, universities, hospitals, hospital associations and a small amount for direct research by the U. S. Public Health Service.

Federal (Hill-Burton) hospital and medical facilities construction program from inception of program through December 31, 1957, in Missouri was presented in tabular form, showing a total cost of all projects of $62,214,000; total hospital beds added 3,224; total chronic hospital beds added 100.

Mr. McIntyre reported that hospitals either planning or in process of enlarging are the Phelps County Hospital, the Kelling Clinic and Hospital at Waverly, the West Plains Hospital, Texas County Hospital at Houston, the Levering Hospital at Hannibal, Memorial Hospital at Brookfield, a hospital at Sweet Springs, Bothwell Hospital at Sedalia, the Boone County Hospital at Columbia, and hospitals at St. Charles, St. Joseph, Joplin and Springfield considering additions.

He presented several booklets dealing with physician placement and with community and physician assistance in locations.

Office Equipment

It was reported that a new mimeograph was needed in the office and that the budget would not cover this. On motion of Dr. Muether, it was voted that the budget be increased by $500.

Forand Bill

Dr. Peden and Mr. Logan reported on the rather extensive work that has been done in Missouri in opposition to the Forand Bill, H.R. No. 9467. The steps that have been taken were given in chronological order with many clippings shown. It was stated that hearings on the bill will start June 16 and that the Association had been asked to prepare a statement which could be presented in Congress. The following proposed statement was presented and accepted with the suggestion that the House of Delegates action in regard to the Vendor program be added.

Statement of MSMA's Position to House Ways and Means Committee Re: Forand Bill (H.R. 9467)

Missouri Physicians wish to state their opposition to H.R. 9467 and other similar measures seeking to provide free hospital and surgical care for Social Security recipients.

Physicians, as always, still stand ready to provide free medical care for those individuals who need help. This system still seems more in keeping with the American way of life than H.R. 9467.

Missouri doctors recently proved this is no hollow statement. They voted unanimously to decline payment for their services if the Vendor program to provide medical care for indigents is adopted in Missouri.

There are many factors that make H.R. 9467 unattractive to physicians, but the most important one is the threat it presents to the doctor-patient relationship. Once a governmental agency enters the picture this relationship suffers. All too soon, it is the government who is calling the shots. The patient and the doctor are the ones expected to conform.

The quality of medical care has suffered in every country that has tied up its medical profession and people with the red tape of bureaucratic controls. The United States now is the undisputed world leader in medical research and care. Why destroy this?

In Missouri, as in other states, progress is being made to bring more and better voluntary health protection to the older citizens. Just recently in Missouri all age restrictions were dropped by Blue Shield and Blue Cross plans.

The four major voluntary groups in the health field also recently formed a Joint Council to Improve the Health Care of the Aged. This is good because the problem cannot be solved by just legislation. It is a philosophical problem that requires a change in our nation's thinking.

Americans are living longer. Consequently, our older citizens are making up a larger and larger percentage of our population.

This problem must be approached from a new angle. That is why the Joint Council was formed. Maybe our arbitrary retirement age of 65 will have to go. Some Congressmen say it should be 60, but logically and physiologically it probably should be raised, not lowered.

In other words, voting free hospitalization and surgical care for social security recipients will not solve the problem of the older citizen. What he needs is not more help, but a chance to do more for himself. Psychologically, it would be better to help him work longer and retain his sense of independence.

Economically, H.R. 9467 would place a tremendous burden on the working public. It would hike their taxes for social security more than 70 per cent. The combined payment of the worker and his boss would jump immediately from the present ceiling of $189 a year to $330, an increase of $141. By 1975, that combined payment would soar to a ceiling of $570 a year —nearly $50 a month.

That will just be a start, however, if H.R. 9467 becomes law. Where it would stop is anyone's guess. Each session of Congress would see numerous attempts to broaden social security coverages even more. Before too long, tax deductions would be bigger than the worker's take home pay. The businessman, of course, would have to pass his added costs on to the buying public.

All of this can occur just because the nation does not face up to the real problem that people are living longer and our philosophy needs changing. Let's take time to re-evaluate the problem of the older citizen, not just pass stop-gap legislation.

Resolutions to Be Presented to AMA

The following resolution passed by the House of Delegates was read:

Whereas, This House of Delegates of the American Medical Association has had under consideration for a period of time a study of the relationship existing between Doctors of Medicine and Doctors of Osteopathy, and

Whereas, There still remains an apparent need for guidance of the constituent associations by the American Medical Association, and

Whereas, This question of ethical relationships is currently a matter of consideration by several constituent state societies; therefore be it

Resolved, That this House of Delegates take immediate action to call for a re-examination of the Cline Committee Report of 1955 and such subsequent studies that might be pertinent to the question under consideration and cause to be formulated a policy which can be useful as a guide to the constituent medical associations in their appraisal and examination of the relevant issues between the two branches of the healing arts profession; and be it further

Resolved, That such policy be formulated with the least practical delay consistent with sound judgment in order that those constituent societies immediately faced with this question will have some firm position from which to proceed.

This was discussed by Drs. Peden, Hall, Muether, Furlow and Mr. O'Brien. Upon motion of Dr. Furlow, it was voted to introduce the resolution.

Low Dosage

KYNEX*

Sulfamethoxypyridazine Lederle

for G.U. Infections

Only
One
tablet
a
Day

Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

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LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

The following resolution adopted by the House of Delegates regarding care of nonservice connected disabilities of veterans was read as follows:

> Whereas, According to special report 85-3 of the Washington office of the AMA the federal government spent $619,-614,000 on hospitalized medical care of veterans in VA Hospitals in 1957 of which about 75 per cent had non-service connected disabilities, and
>
> Whereas, Ways and means of obtaining economy in federal government are allegedly being sought by Congress at this time; therefore, be it
>
> *Resolved*, That this House of Delegates of AMA urge congressional action to restrict hospitalization of Veterans at VA Hospitals to those with service connected disabilities; and be it further
>
> *Resolved*, That the organized medical profession of the United States offer to provide the VA with competent attending and consultant staffs of a quality acceptable to Dean's Committees provided admissions to VA Hospitals are restricted to patients with service connected disabilities.

After discussion, on motion of Dr. Stuart, it was voted to present the resolution.

On both resolutions the delegates were instructed to use their considered judgment as to the best way to handle the resolutions.

Licensure Bill

Mr. O'Brien reviewed the proposed licensure act with the changes made by the House of Delegates and said that it had been given to the osteopathic association and that they would consider it at a meeting of their house in October. The Special Committee of the Council, composed of Drs. Muether, Tillman, Perry, Francka, Creech & Summers will continue this study and report at the next meeting of the Council.

Awards

It was announced that the scrolls and $100 bonds presented to the outstanding seniors in the three medical schools had been presented to Daniel Hilty, Deepwater, Mo., at the University of Missouri; to James L. Striebel, Pittsburgh, Pa., at St. Louis University, and to Jerome Fred Levy, St. Louis, at Washington University. It was stated that the Associated Press carried a release on these awards.

Division of Health

A letter from Dr. Hardwicke stating that he would like an early meeting of the recently appointed advisory committee, composed of Drs. Stauffacher, Peterson, Matthews, Eversoll and Modlin, and outlining subjects to be discussed was presented. The subjects covered were laboratory work of the Division, development of rehabilitation programs within nursing homes, public health nurse program, health education program, immunization program, clinics, development of local health units, birth and death certificates, Hill-Burton program, public health programs in general. Dr. Hardwicke discussed these phases and answered questions.

Action on the question of the Division of Health discontinuing doing diagnostic laboratory tests was delayed pending a report from the Committee on Laboratory Medicine.

Report of Medico-Legal Committee

Reports of meetings of the special Medico-Legal Committee on March 18 and May 15 were presented as follows:

March 18, 1958

"*Purpose:* The meeting held at Dr. Smolik's home was to determine if the committee members present believed there was sufficient reason to meet with a like committee of the Missouri Bar Association to discuss mutual problems. The proposal for such a joint meeting came from the bar group.

"The March 18 meeting was the second held on the subject, the first being March 2, 1958, at the Coronado Hotel. Drs. Smolik, Merenda, Haddock and Funsch were present at both meetings.

"*Decision:* It was the consensus of opinion of those present that there were plenty of areas that offered hope of profitable discussion between the two professions.

"It was pointed out there already were numerous codes between physicians and lawyers in other states. There also have been various attempts to draw up such agreements in Missouri, with one going on now in the St. Louis area.

"*Areas of Possible Discussion:* The most obvious area involves personal damage suits because that is where most of the physician's time seems to go.

"It was mentioned that the trouble in the personal injury field often starts when the attorney-client relationship is imposed on the physician-patient relationship.

"Not only does that irritate many doctors, but many feel that such courtroom-connected duties are an imposition on their time. It was felt, that this is one place where a possible code of conduct, or standard of practice, might help spell out the responsibilities on both sides. It was fully understood by those present that however you might draw up a code there always would be dissenters in both professions. There always will be lawyers who will force the physician into court by subpoena, rather than prior arrangements. There always will be physicians eager to testify for the proper fee.

"The committee members mentioned briefly another area of possible future cooperation—the problem of legislation, both at the state and national level. It was recognized that the two professions are two of the last outposts in the field of free enterprise. In most cases, the individual lawyer and physician is his own boss.

"*Recommendations:* Dr. Funsch was requested to investigate the proposed Interprofessional Code of Ethics being discussed by the St. Louis Medical Society and St. Louis Bar Association. It is known to deal primarily with relations between the two professions on personal damage suits.

"It covers courtroom procedure, the making of medical reports and the payment of adequate compensation for doctors' services.

"The latter point—payment for services—seems to be one of the chief complaints of most physicians. It seems that frequently the patient and his attorney are all too eager for the doctor's help in preparing the case, but tend to forget him once the decision has been rendered.

"Dr. Haddock pointed out the problem was not confined solely to personal damage suits because he had encountered it frequently in guardianship cases in the probate court. He proposed the following points as worthy of discussion:

"Confidentiality of physician-patient relationship to be maintained. Lawyer to furnish written permission of patient before information is released.

"Fees submitted by physicians for report or medical testimony to be commensurate with fees charged for comparable amounts of time and skill in other situations.

"When physician is asked to testify in non compos mentis cases, the attorney representing such cases to be expected to represent (without fee) the physician in his efforts to collect his fee from the court.

"Lawyer to represent without fee the physician in his efforts to collect payments for service in non compos mentis cases in which court must authorize payments.

"The need of adequate facilities in courtrooms for proper presentation of medical testimony was discussed by Dr. Merenda as a problem. He mentioned as one example, viewing boses for x-rays.

"Another feature discussed for possible inclusion in a code was a grievance committee. As Dr. Funsch advocated, maybe there should be two. One composed of doctors, to hear complaints brought against physicians. The second composed of lawyers to hear complaints filed against them.

"*Future Action:* The committee members planned to review other codes before the next meeting. Of the 30-odd on hand, they generally followed the same language and covered the same points. They vary in length from the Cincinnati Code of two pages to Arizona's 14-page code. Practically all of them say: 'Doctor to furnish written reports promptly. Doctor is to be paid by the patient. Doctor is to render bill for courtroom time. Lawyer is to attempt to protect the doctor's claim for his services. No contingent fee for doctor. Give type of explanation about the reasons and need for subpoenas, value of the physician's time and proper courtroom procedure between the two professions.'

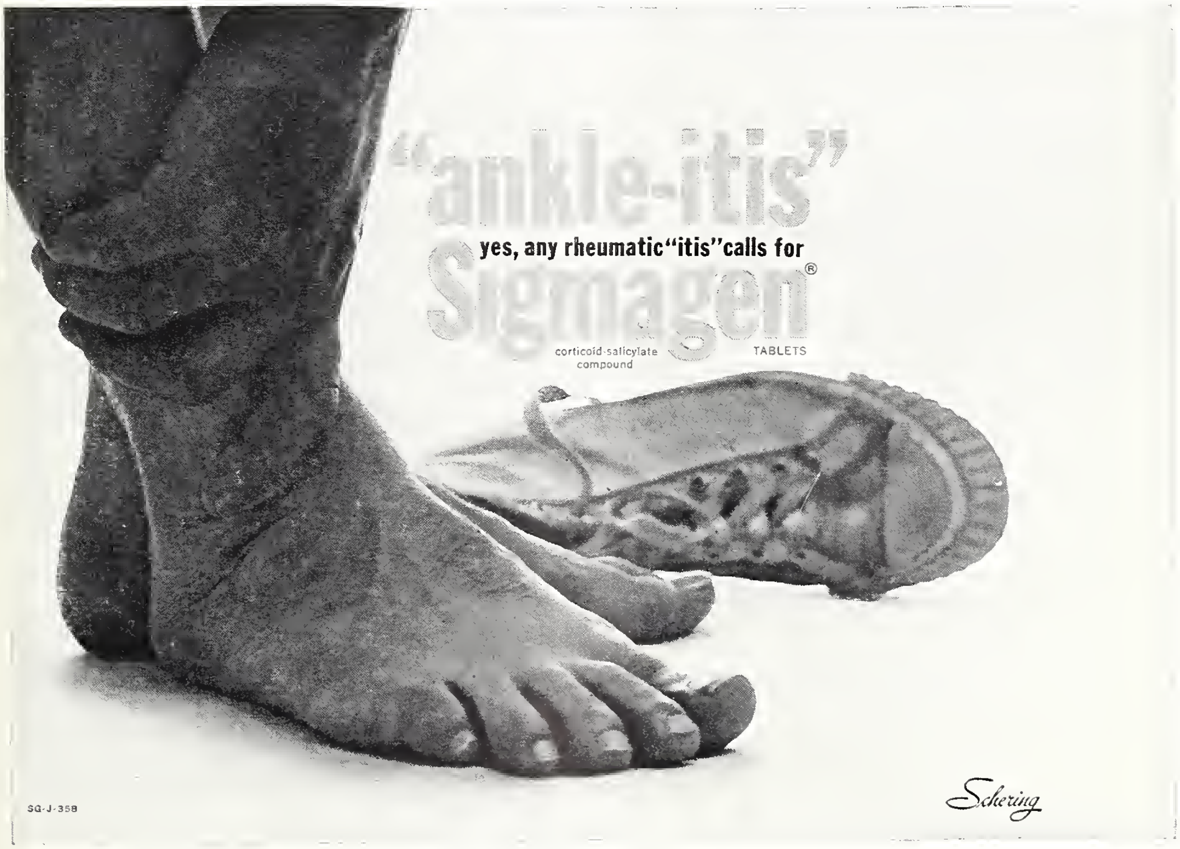
"Other points covered by some codes that might be considered for Missouri: 'Clarification of "privileged communications" in doctor-patient relationship. Should a lawyer be allowed to pay a doctor's fee? If so, under what circumstances? Joint screening panel to consider possible malpractice cases. Some system of supplying names of expert medical testimony. Spell out how much the physician should cooperate with the opposition's attorneys.'

May 15, 1958

Report of Special Medico-Legal Committee.

"*Purpose:* This report summarizes the results of the May 15 meeting of the Mid-Missouri County Medical Society in Rolla. The meeting was devoted to discussion of the mutual problems facing physicians and lawyers. Mr. Ed Gragg, of the Missouri Bar Association, also appeared on the program. About 60 persons were present. The crowd was rather evenly divided between physicians and lawyers and their respective wives from a 6-county area.

Results of Lawyers Talk: Mr. Gragg devoted most of his talk to what he felt was the practical side of the need for cooperation. In other words, it involved the dollar-and-cents approach to the situation, as he saw it.


"ankle-itis"
yes, any rheumatic "itis" calls for
Sigmagen®
corticoid-salicylate compound
TABLETS
Schering
SG-J-358

He stressed it was the obligation of the lawyers to see that their clients (our patients) paid their court-connected bills to us. Especially those charges arising from reports and time spent with their lawyers and in actual court appearances. At one point he suggested that if the doctors and lawyers had an inter-professional code, the lawyers could better insure that the doctors were paid for their services. He inferred such an agreement could be drawn to allow lawyers to withhold settlement money to pay physicians.

Most of his presentation concentrated on the personal injury suit field. However, he did mention that malpractice suits are no factor in Missouri. He explained that few lawyers would take them, adding that most physicians also will not testify against other physicians.

Other suggestions made by Mr. Gragg included faster reporting and more cooperation with lawyers; the use of simpler terminology by doctors when in court; complete impartiality of doctors in court; and doctors to be treated as gentlemen and not to be badgered by lawyers. He also said lawyers would be expected to keep doctors better informed of the progress and ultimate outcome of the case.

One of the innovations, suggested by Mr. Gragg, would be statements to be signed by patient-clients acknowledging their obligations to pay the physician for his services.

He emphasized that there was little likelihood of the physician ever being paid if the case was lost. Lawyers, of course, take their cases on a contingency basis, he pointed out. According to Mr. Gragg, they are not permitted to finance a litigation.

Physician's Side: Dr. Smolik covered the philosophical similarity between the two professions. He mentioned they are two of the last outposts of individual enterprise left in our society. He also reviewed the economic and sociological problems facing the medical profession and how a code might help solve some of the problems.

Conclusion: It was agreed between the two chairmen that their committees would get together in the not too distant future. Before that meeting, however, Dr. Smolik hopes to have another meeting of his committee.

These reports were discussed by Dr. Smolik, together with reporting a meeting at Rolla where he and an attorney appeared on the program at a joint meeting of lawyers and physicians. Following discussion, on motion of Dr. Tillman, the Committee was congratulated on its work and asked to continue at a somewhat cautious pace as it has been doing. It was felt this was better than complying with a request of the Missouri Bar Association that the Presidents of the two organizations get together.

Publication Committee

Dr. Doyle reported on Missouri Medicine and asked cooperation of Councilors in continuing to receive scientific material. He explained the need of additional personnel for the Publication Committee he would like the Council to appoint. On motion of Dr. Furlow, Dr. Doyle was empowered to select such additional members as he needed.

Medicare

Reports of the Committee on Medical Economics meetings of February 16 and May 25 were presented as follows:

"Meeting of the Committee on Medical Economics
Coronado Hotel-St. Louis
February 16, 1958

"*Purpose of Meeting:* The Committee on Medical Economics met February 16 at the Coronado Hotel, St. Louis, to consider the schedule of fees for the new 'Medicare' contract. The present contract expires September 30, 1958.

"The Committee was aware of the action taken by the House of Delegates at the 1957 annual session, as follows: 'That the House of Delegates authorize the Council to explore the possibility of re-negotiating a new contract (for Medicare) on a no-fixed fee schedule basis.'

"Such negotiation, therefore, is the responsibility of the Council and not of the Committee.

"However, in referring the new Medicare Manual to the Committee, the Council realizes that it may not be possible to arrange the new contract on a no-fixed fee basis. If such is the case and since the MSMA, after direct poll of its members, has favored cooperating in the Medicare program, it was thought best to start considering fees for the new Medicare contract. This will save valuable time that otherwise might be lost in waiting for the final decision. Additional members of the Association were invited to assist the committee in preparing the fee schedule.

"*Action:* After a general discussion of the present Medicare contract, the committee agreed it should be used as the basis for a new fee schedule. It was generally agreed that most of the fees are fairly well accepted by most physicians.

"To accomplish this, it was decided that additional physicians will be invited to assist. Those present agreed to contact others in their own field, especially at meetings of their various specialty groups. Other specialists still to be contacted include psychiatrists.

"Tentatively the Committee decided to continue with the relative value schedule (or unit system) used by the California Medical Association.

"One of the problems confronting the group involves the proportioning of fees when one physician does not provide total care after the operation, such as postoperative care in the hospital and postoperative care following hospitalization. This problem was raised by the Federal government's office for Dependents' Medical Care. The new contract requires a percentage breakdown.

"Explanation of the percentage breakdown required is contained in a letter from the Office of the Surgeon General, Department of the Army, dated February 3, 1958. It explains:

"Column 1 covers cases in which the total surgical care, including pre and postoperative treatment, is provided by one physician.

"Column 2 is to cover surgery only. As stated in the Surgeon General's letter: "In other words, the operating surgeon accomplishes preoperative examination and/or consultation and performs the surgical procedure, but does not render any postoperative care, either in or out of the hospital.

"Column 3 covers postoperative care rendered in the hospital by other than the operating surgeon. The

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totals of Column 2 and 3 cannot exceed 90 per cent of the amount of Column 1.

"Column 4 covers just postoperative visits occurring after the period of postoperative care in the hospital. Again this is care *not* rendered by the operating surgeon.

"*Future Action:* All recommendations are to be considered at a future meeting of the Committee. Following this the Committee's findings will be made to the Council.

"May 1 has been set as the target date for recommendations from the Committee members, both regular and special. Please send them to the MSMA office so they can be consolidated for the next meeting.

"Meeting of the Committee on Medical Economics
Coronado Hotel—St. Louis
May 25, 1958

"*Purpose of Meeting:* The Committee met to review possible changes of the Medicare contract that is to be renegotiated. First meeting of the Committee and its special members for this purpose was February 16, 1958. The present contract expires September 30, 1958.

"Since the last meeting, the House of Delegates authorized the Council of the MSMA to renegotiate another contract with the Defense Department on the same general lines as the present one.

"*Action:* Physicians present reported that on the whole their particular specialties were agreeable to the present Medicare fees. Certain changes, of course, will be sought by the negotiating team. These proposed changes, representing both increases and decreases, should help remove some of the present inequities.

It was decided that the same fee schedule should apply for the Veterans Hometown program. This government program for veterans with service-connected disabilities is to be handled in a very simple fashion without formal negotiations over fees. Instead, the government plans to issue a letter of authorization for medical care by private physicians. The authorization will have no fixed termination date, but run indefinitely subject to changes by the government.

"It also was decided the Medicare schedule should be used when applicable for Railroad Retirement Board work. Although the MSMA has not been consulted regarding the fee schedule of the Missouri Rehabilitation Service, it also was felt the Medicare schedule should apply for medical care rendered under that program. As committee chairman, Dr. Rowlette recommends the percentage breakdown on surgical fees requested by the Defense Department not be done. Instead, he suggests each case in which such a procedure is necessary be handled individually and decided on its own merits.

On motion of Dr. Muether the recommendations on Medicare, the Veterans Hometown care and vocational rehabilitation given in the reports were approved.

It was announced that the time set for renegotiating of the Medicare contract was September 3 and 4. It was pointed out that 40 per cent of cases related to obstetrics and on motion of Dr. Bull, it was voted that an obstetrician, a surgeon and an internist should go to Washington as well as Mr. O'Brien or Mr. Logan for the renegotiation, the government being asked to pay for four instead of two representatives because two fiscal agents and plans are involved, but that four should go regardless.

Committee to Study Councilor Districts

Dr. Francka announced the committee approved by the House of Delegates to study the Councilor District set-up and delegate representation as follows: the member from the 1st District to be announced later; 2nd District, H. L. Greene, Hannibal; 3rd District, Daniel L. Sexton. St. Louis; 4th District, Guy N. Magness, University City; 5th District, Logan Allee, Eldon; 6th District, O. B. Barger, Harrisonville; 7th District, Victor B. Buhler, Kansas City; 8th District, Walter S. Sewell, Springfield, Chairman; 9th District, H. W. Carrington, Lebanon; 10th District, J. H. Trolinger, Jackson.

Diabetes Association

A letter from Dr. Henry E. Oppenheimer requesting the appointment of a member of the Association to the Council of the Missouri Diabetes Association was read and on motion of Dr. Muether, Lucien W. Ide, M.D., St. Joseph, was appointed.

Newsletter

The possibility of a newsletter concerning Council proceedings was discussed. On motion of Dr. Francka, it was voted to consider a narrative account of the Council in MISSOURI MEDICINE at the same time the minutes were published for the time being and the newsletter be considered at a later meeting.

J. H. SUMMERS, M.D., *Chairman*

From the Medical Schools

UNIVERSITY OF MISSOURI

Meetings

A State Pediatric Meeting sponsored by the American Academy of Pediatrics was held at the Medical Center Auditorium on May 17. Members of the faculty who presented papers were Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, and Dr. Helen Waiches, instructor in pediatrics on "Observations on Children With Diabetes Receiving a New Oral Hypoglycemic Drug"; Dr. Constantine Anast, assistant professor of pediatrics, presented "Studies of Serum Magnesium Levels in the Newborn," and Dr. W. R. Hepner, Jr., associate professor, presented "Some Unusual Varieties of Visceral Epilepsy." Others appearing on the program were: Dr. Jean Holowach, Dr. Hulda Wohltmann, Dr. J. Neal Meddelkamp, Dr. M. R. Behrer, all from Washington University, St. Louis; Dr. William J. Carter and Dr. Ned W. Smull of Children's Mercy Hospital, Kansas City; and Dr. Walter McAinish, Dr. Virginia Peden, Dr. Willard Avery, Dr. Richard Mamiya, Dr. J. Eugene Lewis, Dr. Charles Nigh, and Dr. J. Gerard Mudd all of St. Louis University, St. Louis. Dr. Ernest Glasscock, state chairman of the American Academy of Pediatrics, presided at the morning session of the program and Dr. Edward L. Washington, Columbia, presided at the afternoon session.

A meeting of the Missouri Hospital Association, the Central Missouri Hospital Council, and the American Hospital Association was held on May 19 in the Medical Center Auditorium. This was a special meeting at which Mr. Edward Lannigan, Area Representative of the American Hospital Association, spoke to the group.

The seventy-first meeting of the Eastern Missouri Branch of the Society of American Bacteriologists was held on Saturday, May 24, at the University of Missouri Medical Center Auditorium. Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, is the President of the Eastern Missouri Branch and presided at the meeting.

The Second Precommencement Exercises of the University of Missouri School of Medicine were held on Thursday, May 29, at the Medical Center Auditorium. The program was in honor of the thirty-three graduates of the School of Medicine who received the degree of Doctor of Medicine at the regular Commencement Exercises held on June 6. The Missouri State Medical Association presented an award to the top graduate of the class who was Daniel E. Hilty, Deepwater, Missouri. The Dr. Fred B. Kyger Award was given to the outstanding fourth year student in the field of obstetrics and gynecology who was Joseph L. Godat, Jr., Normandy. Also recognized at the exercises were three fourth-year medical students and two third-year medical students who were candidates for election to the Gamma Chapter of the Alpha Omega Alpha Honorary Medical Society. Edward E. Clark, Jr., Brentwood, James M. Ozenberger, St. Joseph, and Charles G. Stephens, Ashburn, were the fourth-year medical students and Donald M. Long, Jefferson City, and Monroe B. Painter, New Franklin, were the third year students. Daniel E. Hilty, Deepwater, and Carl C. Pearman, Hartville, both graduating students, were elected to the Society last year.

Dr. M. Pinson Neal, Professor of Pathology, was also honored at the Exercises. Dr. Neal became Professor Emeritus at the Commencement Exercises on June 6. Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, spoke praising Dr. Neal for his long and faithful years of training new physicians. Dr. Neal has served the University for 36 years. Letters were read from former students of Dr. Neal's from all part of Missouri and some 20 other states. He was described as a "master teacher, philosopher, and doctor."

Dr. Roscoe L. Pullen, Dean of the School of Medicine, presented a timely address on the subject of "Continuing Education." Following the address, Dr. Pullen rendered the Physicians' Oath to all graduates of the Class of 1958. A coffee hour followed the program in the Postgraduate Lounge of the Medical Center.

Trips and Talks

Dr. T. D. Luckey, professor and chairman of the Department of Biochemistry, attended a meeting of the New York Academy of Science held in New York City from May 14 to 17. Dr. Luckey presented a talk on "Biochemistry and Nutrition of Germfree Chicks."

Dr. Thomas W. Burns, associate professor of medicine and acting chairman of the Department, attended a meeting of the American Federation of Clinical Research held in Atlantic City, New Jersey, from May 3 to 7.

Dr. J. M. Martt, assistant professor of medicine, attended the meeting of the American College of Cardiology in St. Louis from May 21 to 24 where he showed a scientific exhibit on "Prophylaxis of Rheumatic Fever."

On May 22 to 24, Dr. John F. Lowney, assistant professor of medicine, attended the meeting of the American Association for Study of Neoplastic Disease held in Gatlinburg, Tennessee.

Dr. Raymond Vickers, assistant professor of medicine, attended the meeting of the American College of Cardiology held in St. Louis on May 21, and on May 24 and 25, Dr. Vickers attended the meeting of the American Society of Gerontology held in St. Louis.

Dr. J. Ned Smith, assistant professor of medicine, attended the meetings of the International Congress of Gastroenterology, and American Gastroscopy Society, and the American College of Gastroenterology, held in Washington, D. C., from May 24 to 29.

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, presided at the meeting of the Eastern Missouri Branch of the Society of American Bacteriologists for the scientific program and tour of the Medical Center held on May 24. Other members of the Department of Microbiology attending the meeting were Dr. Herbert S. Goldberg, associate professor of microbiology, Dr. James T. Barrett, Dr. Michael H. Ivey, and Dr. Robert Keller, assistant professors of microbiology.

Dr. Harold M. Haugen, assistant professor of obstetrics and gynecology, attended a lecture by Dr. Hertiz of Harvard University on the subject of "Gynecological Pathology and Embryonic Development." The lecture was sponsored by the Department of Pathology of St. Louis University School of Medicine and was held on May 16.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, spoke to the Optimist Club of Columbia on May 19, on the subject of "Medicine—One of Columbia's Major Industries." On May 20, Dr. Stephenson attended the meeting of the Central Missouri Chapter of the American College of Surgeons held in Columbia. Dr. Stephenson attended the scientific session of former Bellevue residents in New York City from May 31 to June 5 and spoke to the session on June 4.

Dr. S. P. W. Black, professor of neurosurgery, attended the meeting of the Central Missouri Chapter of American College of Surgeons on May 20, in Columbia.

Dr. Grafton A. Smith, assistant professor of surgery, attended the American Board of Thoracic Surgeons meeting in Boston on May 11 and 12, the Chemotherapeutical Conference on May 15, and the American Association of Thoracic Surgeons meeting on May 16, 17 and 18.

Dr. Kenneth K. Keown, professor of anesthesiology, attended the meeting of the Illinois Society of Anesthesiologists held in Chicago on May 18 and made a presentation to the group on: "The Role of the Anesthesiologists in the Treatment of Coronary Disease." On May 20, Dr. Keown attended the Cardiovascular and Anesthesiology Sections of the Illinois State Medical Society meeting in Chicago and gave a presentation on "Surgical Considerations in Peripheral Vascular Disease."

Dr. Owen A. Kearns has been appointed Medical Director of the Missouri State Crippled Children's Service and associate professor of preventive medicine and public health, effective July 1. Dr. Kearns received his M.B. and M.D. in 1940 from Northwestern University Medical School.

Dr. Thorpe Ray has been appointed professor of medicine and chairman of the Department of Medicine effective July 1. Dr. Ray received his M.D. from the University of Texas School of Medicine in 1941.

Dr. John William Payne was appointed clinical associate in orthopedic surgery, part-time voluntary, effective April 1. Dr. Payne received his M.D. in 1948 from Baylor University College of Medicine.

Dr. John L. Holmes was appointed assistant professor of orthopedic surgery effective June 16. Dr. Holmes received his M.D. in 1950 from the Indiana University.

Dr. Ahmed Mobaned Badran has been appointed assistant instructor and third year resident in medicine beginning July 1.

Dr. Davis Leo Hagar has been appointed assistant instructor in pediatrics and second year resident effective July 1. Dr. Hagar received his M.D. in 1956 from the University of Kansas.

Dr. Yataro Suzuki has been appointed assistant instructor and second year resident in medicine effective July 1.

Dr. Rafik Talik Hubaytar has been appointed assistant instructor and second year resident in medicine effective July 1.

Dr. Lourdes L. Alejandrino has been appointed assistant instructor and second year resident in pediatrics effective July 1. Dr. Alejandrino received his M.D. in 1953 from the University of Santo Thomas College of Medicine, Manila, P. I.

Dr. Costas A. Psarakis has been appointed assistant instructor and second year resident in pediatrics effective July 1. Dr. Psarakis received his M.D. in 1952 from the University of Athens Medical School, Athens, Greece.

Dr. Robert M. Jamison has been appointed assistant instructor in radiology and second year resident effective July 1. He received his M.D. in 1950 from the Medical College of Virginia.

Dr. Sergio O. Rustia has been appointed assistant instructor and first year resident in medicine effective July 1. He received his M.D. in 1955 from the College of Medicine, Manila, P. I.

Dr. Manuel Antero Valencia has been appointed assistant instructor and first year resident in medicine effective July 1.

Dr. John Franklin Gaskill has been appointed assistant instructor and first year resident in surgery effective July 1. He received his M.D. in 1957 from the University of Nebraska College of Medicine.

Dr. Robert Lee Chester has been appointed assistant instructor in surgery and first year resident in anesthesiology effective July 1. He received his M.E. from the University of Arkansas.

WASHINGTON UNIVERSITY

New Dean Named

Dr. Edward W. Dempsey, assistant to the dean of the Washington University School of Medicine for the last two years, has been named dean of the school, effective September 1. Announcement was made June 5 at the annual banquet of the Medical Alumni Association at Hotel Chase. The new dean succeeds Dr. Oliver Lowry who has held the post since 1955 and will now devote his time to teaching and research. Dr. Lowry is also professor of pharmacology and head of that department. Dr. Dempsey, who is professor of anatomy and head of the department, will retain both posts when he takes over the deanship. A graduate of Marietta College, Marietta, Ohio, Dr. Dempsey received master of science and doctor of philosophy degrees in biology from Brown University. He was awarded an honorary master of arts degree from Harvard University in 1946 and in 1954 he was awarded the honorary degree of doctor of science from Marietta College. From 1938 until assuming his post at Washington University in 1950, Dr. Dempsey was a faculty member of the Harvard Medical School. He has also been a visiting professor of anatomy at Long Island College of Medicine and at Stanford University School of Medicine. A member of numerous scientific groups, he is noted for his work on the chemical structure of the cell and for his pioneer studies on electron microscopy. Dr. Dempsey lives at 6330 Washington Avenue, with his wife and three children. A native of Chicago, Dr. Lowry has been on the staff of the Medical School for the last eleven years as professor and head of the Department of Pharmacology. While serving as dean he continued in both posts. Before coming to St. Louis in 1947, he was associate chief of the Public Health Research Institute or New York City for five years. In the course of research projects, Dr. Lowry has invented several instruments for making exceedingly fine and delicate measurements in the laboratory, making possible measurements to the billionth of a gram. The Lowry balance has special applicability to research on brain tissue

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where structure varies from area to area in type and composition of cells. With his wife and five children, Dr. Lowry lives at 7033 Lindell Boulevard.

Student Awards

Dr. Donald R. Harkness and Dr. Bryce L. Munger received their doctor of medicine degrees magna cum laude at commencement exercises June 11. The only previous degree magna cum laude in the history of the school was awarded in June 1954. Dr. Harkness was given two additional honors at annual award ceremonies held June 10 in Graham Chapel at Washington University. These were the Alpha Omega Alpha prize for the highest four-year academic average and the $100 Medical Fund Prize for excellence in the study of internal medicine. In July, Dr. Harkness began his internship training in ward medicine at Barnes Hospital. His wife, Mary, also received her medical degree from Washington University at June commencement exercises. Dr. Harkness is the son of Mr. and Mrs. K. M. Harkness, who are living on Okinawa, where Mr. Harkness is teaching. The medical graduate was elected to Phi Beta Kappa at the University of California, where he received his A.B. degree with highest honors in zoology in 1954. Dr. Munger was awarded the $500 Borden Prize for the most meritorious original undergraduate research. The prize was awarded for two electron microscopic studies of pancreatic acinar cells of the mouse. The first study was published in March in the *Journal of Biophysical and Biochemical Cytology;* the second will appear in a forthcoming issue of the *American Journal of Anatomy.* In July, Dr. Munger began his internship in pathology at Johns Hopkins. He served as president of Alpha Omega Alpha, honorary medical fraternity, during the 1957-58 school year. The son of Mr. and Mrs. Leon C. Munger, Everett, Wash., he is a graduate of the University of Washington, Seattle. Also receiving awards at the annual ceremony were Dr. Robert I. Lindemeyer, the $50 Bronfenbrenner Memorial award for the most outstanding work in the field of infectious diseases; Dr. Jerome F. Levy, the Missouri State Medical Association award of a $100 United States savings bond to an honor medical graduate; Dr. Matthew K. Becker and Dr. Edwin King Burford, Jr., the Medical Fund Society $100 prize for excellence in the study of surgery; Dr. Norman D. Anderson, Dr. Benjamin A. Borowsky, Dr. Richard E. Bryant, Dr. David M. Kessner, and Dr. Jerome L. Silverman, C. V. Mosby Company Book Awards for high general scholastic standing and research achievement. Drs. Anderson, Borowsky, Bryant, Kessner, Levy, Lindemeyer, Silverman, Joseph R. Williamson, Theodore J. Brickner, Jr., Herbert Lubowitz and Byron J. Masterson received degrees cum laude. Dr. W. Barry Wood, Jr., vice president, John Hopkins Medical Institutions, and former Busch professor and chairman of the department of medicine at Washington University School of Medicine, was Senior Award Night speaker.

Medical Alumni Clinic Day

Clinical sessions, a luncheon, a banquet and class reunions were featured during Medical Alumni Clinic Day sponsored June 6 by the Washington University Medical Alumni Association. Featured speakers at morning seminars included Dr. Richard Y. Sakimoto, Honolulu, Hawaii, and Dr. Russell J. Blattner, professor of pediatrics and chairman of the department, College of Medicine, Baylor University, Houston. Both are Washington University alumni. Staff members taking part in seminars were Drs. Carl. G. Harford, Albert Roos, William J. Harrington, Neal S. Bricker, Richard J. Bing, Robert E. Shank and John R. Smith. Seminar topics dealt with viruses, pulmonary blood flow, blood diseases, Bright's disease, myocardial metabolism, pulmonary embolism and infarction, diseases of the liver, congenital malformations and infant deliveries. Taking part in a panel on hyperthyroidism were Drs. Grace E. Bergner, Gladden V. Elliot, Lawrence W. O'Neal and Seymour Reichlin, all alumni of Washington University. Dr. John H. Furbay, director of air world education, Trans World Airlines, spoke at an alumni Association banquet that night in the Starlight Roof, Chase Hotel.

Alpha Omega Alpha Initiates

Fifteen members were initiated by the Washington University School of Medicine chapter of Alpha Omega Alpha, national medical honor society, at the annual banquet June 3 in the David P. Wohl, Jr. Memorial Hospital dining room. Initiated were Drs. Norman D. Anderson, Matthew K. Decker, Oliver J. Biederman, Benjamin A. Borowsky, Mylon L. Buck, Edwin K. Burford, Alexander Gottschalk, Donald R. Harkness, Jerome F. Levy, Byron Masterson, Arlen E. Morrison, Richard H. Morrow, Robert B. Winter, and two medical students who will begin their senior year in September, Richard D. Aach and Albert L. Rhoton. Aach was named Alpha Omega Alpha president-elect for the 1958-59 school year, Rhoton, vice-president and Dr. Henry G. Schwartz, professor of neurosurgery, faculty adviser.

Grants, Gifts

Washington University School of Medicine has received $940,987 in research grants from the United Cerebral Palsy Association. A $21,800 two-year grant was awarded Dr. Eli Robins, associate professor of psychiatry; a one-year $10,270 grant to Dr. David McDougal, Jr., assistant professor and Kenny scholar in pharmacology and a six-months' renewal grant of $8,917 to Dr. John A. Stern, associate professor of medical psychology, and Dr. George A. Ulett, professor of psychiatry. Dr. Robins' grant supports research on "Quantitative Histochemical Studies of the Morphogenesis of the Cerebellum"; Dr. McDougal's, "Quantitative Histochemistry of the Nervous System in Hereditary Atoxia," and Drs. Stern and Ulett, "An Investigation of Neurophysiological Changes Taking Place During the Learning Process." Grants totaling $194,098 were awarded the Medical School by the U. S. Public Health Service. Largest new grant, $32,400, was to Dr. W. Stanley Hartroft, Mallinckrodt professor and chairman of the department of pathology, to inaugurate a new training program for pathology postgraduate students. Dr. Oliver H. Lowry, professor and chairman of the department of pharmacology, received a $29,576 new grant for a training program in neuropharmacology; Dr. Ernst Helmreich, assistant professor of biochemistry in the department of medicine, $17,153 to support research to discover how isolated mammalian cells obtain and use essential nutrients; Dr. Robert M. Burton, assistant professor of pharmacology, grants of $15,535 and $12,000 for respective studies of how sugar containing lipids in the brain are produced and function and how reserpine

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is metabolized by the body; Dr. Samuel B. Guze, assistant professor of medicine and of psychiatry, $12,000 to study effects of various drugs on behavior and to develop new techniques for studying behavior under objective and quantitative circumstances; $6,095 to Dr. Herman Eisen, professor of medicine in the division of dermatology, to be used as a postdoctoral research fellowship for Dr. Alain L. de Weck, who has been research assistant at the Institute of Pathology, University of Geneva, Switzerland; Dr. Peter Heinbecker, professor of clinical surgery, and Dr. Eugene M. Bricker, associate professor of clinical surgery, grants of $4,421 and $1,989, respectively, for departmental research projects. A renewal grant of $21,999 was awarded Dr. Arthur Kornberg, professor and chairman of the department of microbiology; $20,700 to Dr. James E. Miller, instructor in ophthalmology; and $12,200 to Dr. Lowry. Dr. Theodore E. Walsh, professor and chairman of the department of otolaryngology, received a supplemental grant of $8,030. An additional 10,000 shares of Peabody Coal Co. common stock, valued at $108,125, are now available for the L. Russell Kelce Endowment for hematology research. The stock was left the school under terms of the will of L. Russell Kelce, former president of Peabody Coal Co., who died June 30, 1957, in Barnes Hospital of lymphosarcoma. In June 1956, Mr. Kelce had established the permanent endowment fund with 10,000 shares of common stock. A January stock dividend and the additional 10,000 shares bring the endowment value to $238,125. The fund is under the direction of Dr. Carl V. Moore, Busch professor and chairman of the department of medicine, and Dr. Edward H. Reinhard, associate professor of medicine. It provides salary for several staff members, research funds and consumable supplies for investigations conducted in the division's hematology section of which Dr. William J. Harrington, associate professor of medicine, is head.

To Leave for Europe

Dr. Sam L. Clark, Jr., assistant professor and U. S. Public Health Service senior research fellow in anatomy at Washington University School of Medicine, has been given a year's leave of absence to study in Dr. J. H. Humphrey's laboratory at the National Institute for Medical Research in London, England. Dr. Clark, his wife and their three children will leave for England on September 2. They will stay in the home of Dr. A. M. Lawn, lecturer in physiology, Royal Veterinary College, London. Dr. Lawn, who will be a visitor in the Washington University School of Medicine anatomy department for a year beginning September 1, will stay in the Clark home at 907 Volz drive, Webster Groves. His wife and family will accompany him to St. Louis. While at the London laboratory, Dr. Clark will continue work on electron microscopy begun at Washington University, and also will employ research methods Dr. Humphrey is using to determine how immunological aspects of body cells and tissues affect growth and development.

William J. Crowley and Donald Stewart, Jr., students at Washington University School of Medicine, have received post-sophomore year fellowships from the U. S. Public Health Service to do research work in Europe. Crowley will be an assistant in the laboratory of Dr. A. M. Monnier, professor of physiology at the Sorbonne, Paris. Stewart will study at St. Thomas's Hospital Medical School, London, under Dr. D. V. Davies, professor of anatomy. Crowley became interested in Dr. Monnier's work on excitation and propagation of nerve impulses when the Sorbonne professor participated in a Washington University Medical Seminar last year. Stewart will continue work on the problem of iron transport and metabolism in the mammalian placenta and fetus. He began work on this project last summer while working with Dr. Jack Davies and Dr. Elmer Brown in the anatomy department at Washington University Medical School.

Conferences

Dr. Ruth Steinkamp, instructor in clinical medicine at Washington University School of Medicine, has been appointed organizational consultant for the Nutritional Anemias Conference to be held this October in Geneva, Switzerland, by the World Health Organization. She left for Switzerland June 30 and will spend July, August and September organizing the conference, which will be attended by scientists and members of the medical profession from throughout the world. Dr. James M. A. Weiss, clinical director of Malcolm Bliss Mental Health Center and assistant professor of psychiatry at Washington University Medical School, has been appointed a faculty fellow of the Inter-University Council for the 1958 summer session of the Institute for Social Gerontology.

SAINT LOUIS UNIVERSITY

Appointment

Dr. Rene Wegria, associate professor of medicine at Presbyterian Hospital and Columbia University College of Physicians and Surgeons, has been appointed professor of internal medicine and director of the department at the Saint Louis University School of Medicine. Dr. Wegria's appointment becomes effective in late summer at which time he assumed full-time directorship of the Department of Internal Medicine, which maintain offices and research laboratories at Firmin Desloge Hospital, the main teaching hospital of the School of Medicine. In his new capacity, Dr. Wegria will also serve as physician-in-chief of the St. Mary's Group of Hospitals.

Dr. Wegria, an experimental cardiovascular physiologist and international authority on heart disease will conduct active research in the field of hemodynamics (circulation of the blood), the effect of pulmonary disease on cardiac action and the pharmacology of the coronary circulation.

Dr. Wegria was awarded his M.D. degree from the University of Liege in Belgium in 1936 and his Doctor in Medical Sciences degree (Internal Medicine) from the Columbia University College of Physicians and Surgeons in 1945. Dr. Wegria was named Laureat of the 1934-35 Concours Interuniversitaire de Belgique. From 1937 to 1939 he was a fellow of the Belgian American Educational Foundation at Vanderbilt University, Mayo Foundation and Western University. He began his teaching career as an instructor in physiology at Western University in 1940. He joined the staff of the Presbyterian Hospital and Columbia University College of Physicians and Surgeons as an assistant resident in cardiology and assistant in medicine in 1943. This year Dr. Wegria served as visiting professor of Lovanium University in Leopoldville, Belgium.

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PUBLISHED REFERENCES: **1.** Carpenter, E. B.: Southern Medical Journal 51:627, 1958. **2.** Forsyth, H. F.: J.A.M.A. 167:163, 1958. **3.** Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. **4.** Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. **5.** O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. **6.** Park, H. W.: J.A.M.A. 167:168, 1958. **7.** Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 95:422, 1957. **8.** Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

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CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL of the American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL of the American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL of the American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

Honor

Dr. Edward A. Doisy, Sr., Nobel Prize Winner, received an alumni achievement award at commencement exercises held at the University of Illinois in Urbana on June 14. Dr. Doisy is Distinguished Service Professor of Biochemistry and Director of the Edward A. Doisy Department of Biochemistry at the Saint Louis University School of Medicine.

In 1944 Dr. Doisy shared the Nobel Prize in Medicine with Dr. H. Dam for isolating and determining the constitution and synthesis of Vitamin K. Earlier in his career, Dr. Doisy's research resulted in the isolation of theelin.

He took his undergraduate and first advanced studies at the University of Illinois. He began his teaching and research career at Harvard University where he earned his Ph.D. degree in 1920. He began his long association with the School of Medicine in 1923 as a professor in biochemistry.

Lectures and Travel

Dr. Grayson Carroll, associate professor of clinical urology, represented the American Urological Association in a study of urology and other medical work being conducted in Russia. Dr. Carroll spent eleven days in Moscow and Leningrad during the month of July. He also delivered a paper titled "Urinary Infections" before the Congress of the International Urological Society held in Stockholm, Sweden, the latter part of June. The Congress meets every three years at which time selected representatives from various countries contribute medical lectures. Prior to the meeting in Stockholm, Dr. Carroll attended a meeting of the Belgium Urological Association held in Brussels.

Dr. William F. Melick, assistant professor of clinical urology and director, resident staff in urology, participated in a panel on "Etiology of Bladder Cancer" before the Seventh International Cancer Congress held in London, England, July 5-12. Following the Congress, Dr. Melick traveled to Germany to take part in a similar conference.

Dr. Donald R. Thomson, World Health Organization Medical Adviser to United Nations Children's Fund, Asia Regional Office, visited the School of Medicine June 14 and lectured on "WHO's Assistance to Communicable Disease Control Work in Under-developed Countries." Dr. Thomson made the trip to Saint Louis from Bangkok, Thailand, his office headquarters. His visit and lecture was sponsored by the Department of Microbiology.

Dr. David Lozano-Elizondo visited clinics in Washington, D. C., and New York en route to Boston, where he has assumed new duties. Formerly an assistant in ophthalmology at the School of Medicine, Dr. Lozano has been appointed a special fellow to the Retina Service of the Massachusetts Eye and Ear Infirmary, the Ophthalmic Teaching Hospital of Harvard Medical School. Dr. Lozano served as resident in the Saint Mary's Group of Hospitals before serving as assistant in ophthalmology at the School of Medicine. His research will be under the direction of Dr. Charles L. Schepens, Director of the Retina Foundation in Boston.

Grant

Dr. John P. Wyatt, professor of pathology and associate director of the department, and Dr. Herbert C. Sweet, assistant professor of internal medicine and director of the Miller Pulmonary Laboratories at the School of Medicine, have been awarded a four-year grant of $73,000 by The National Heart Institute of the United States.

Under the new grant Drs. Sweet and Wyatt will correlate the clinical patterns of emphysema and industrial lung diseases with the pathologic changes in the lung as determined by radiographic and injection methods. Dr. Peter W. Kinsella, instructor in internal medicine and research assistant in the Pulmonary Laboratories, will be associated in the project. The investigators will study the different types of emphysema with the patterns of disease as seen in various individuals suffering from lung ailments. The information obtained in the study should contribute to the knowledge of the cause or causes of these crippling lung diseases.

Missouri Medicine in Review

(Continued from page 846)

dent of Missouri Society for Mental Hygiene at the annual meeting held in St. Louis April 20.

TEN YEARS AGO

Buford G. Hamilton, M.D., Richmond, was recently elected president of the Richmond Rotary Club. Edward G. Claiborn, M.D., Camdenton, was praised in an article appearing in the *Camdenton Reveille* upon the occasion of his starting his fifty-third year of practice in Camdenton County.

The death rate from all causes among United States life insurance policyholders reached a new low in 1947 at 737.9 per 100,000, with declines shown for practically all causes of death including heart diseases and cancer, the Life Insurance Association of America reports. Heart diseases of all kinds constituted the leading cause of death among policyholders last year. Nearly half of all the deaths included in the survey were attributed to heart disease, cerebral hemorrhage and nephritis together making up the principal diseases in the group. Cancer, the second leading cause of policyholder deaths, also declined during 1947, the first drop in several years. The 1947 death rate of 114.8 compares with 116.9 in the previous year and 106.8 in 1952. Cancer deaths terminated an estimated 200,000 life policies last year.

The Missouri State Medical Association held its Ninetieth Annual Session in St. Louis, March 14-17, 1948. W. S. Sewell, M.D., Springfield, nominated Wallis Smith, M.D., Springfield, for President-Elect. For Vice Presidents: B. E. DeTar, M.D., Joplin; D. P. Dyer, M.D., Sedalia; P. W. Jennings, M.D., Canton. Robert Mueller, M.D., St. Louis, was installed as President of the Association. Morris B. Simpson, Kansas City, was the out-going president.

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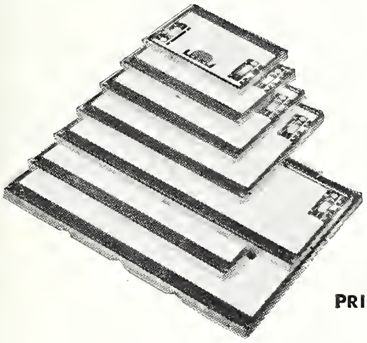

Molded-rubber frame cushions jolts, keeps front and back of cassette in *true alignment*. Built-in glass-fiber pad gently squeezes screens and film for uniform contact always. "Slide-easy" latches release at light finger pressure, resist accidental opening. Molded-rubber seal prevents entry of light. Exclusive rubber hinge — thoroughly proved in ½-million flexings that left it *bonded as firmly as at time of manufacture!*

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Across Missouri

(Continued from page 832)

has failed. Apparently only 20,000 more signatures were needed, with about 50,000 already on the dotted line.

The proposal would go before the voters in the November general election. It would hike the monthly old-age assistance payment from $65 to $100 a month. The increase would be financed by additional liquor taxes.

United fund giving campaigns seem to be in a lot of trouble across the state, as well as over the nation. Both in Kansas City and St. Louis, the united drive idea is under attack by component groups. They threaten to pull out, claiming they could do better on their own.

Most civic, business and labor leaders are upset at the prospect of returning to the myriad of individual drives.

Backers of the united drives say the cost in money and effort of the individual drives is all out of proportion to the yield, as compared with the single community-wide effort.

Individual agencies counter that they don't receive what they ask for and need. They dislike having the purse strings in the hands of the united fund group. Some of the dissenters who are nationwide in scope and have well established plans are afraid they eventually will lose their individuality.

The state Division of Welfare has reduced its payments to dependent children, reflecting reduced appropriations made for this purpose at the recent special session of the Legislature.

The average check for Aid to Dependent Children (ADC) has been reduced nearly $2 a month, a drop of about 7 per cent. The average check now is about $24.50.

The number of children receiving ADC income now stands near the 70,000-mark, compared with 58,617 a year ago. Six months ago the total was about 65,000, an indication of the steady climb in the aid program that has continued for months.

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Curiosa et Trivia

William B. McCunniff, M.D.

Two per cent of the orphans in the United States have lost both parents; 30 per cent have lost their mother only; 68 per cent have lost their father. And to save you a trip to the dictionary—too—an orphan is a child who has lost one or both parents.

One ounce of heavily infected pork may contain over 100,000 encysted Trichinelia spiralis larvae.

A very descriptive word, carbuncle. It is derived from the Latin *carbunculus,* meaning a "little piece of coal." The incendiary aspect is implied.

Sideline: Dr. James W. Throckmorton was elected Governor of Texas in 1866, served six years in the Legislature, eight years in the State Senate, four years in the Confederate Army, where he advanced from Captain to Brigadier General.

Only four out of a hundred regular heavy drinkers ever have delirium tremens.

For setting the broken leg of John Wilkes Booth, Dr. Samuel Mudd was convicted as a conspirator in the assassination of Abraham Lincoln. Although he served a life sentence at hard labor, he was never given a trial by jury, nor actually proved guilty.

A Seventeenth Century obstetrician was required to conduct his manipulations with his head stuck through a hole in a large sheet which completely covered the mother. This arrangement presumably lessened her embarrassment.

Until human beings attain advanced old age, no single year presents the hazards to life that the first year offers.

At the insistence of three women, Lydia Pinkham sold half a dozen bottles of her vegetable compound for "women's ills" for $5.00 in 1873. Within ten years, annual sales amounted to almost a half million dollars. Mrs. Pinkham had gotten the formula a few years earlier in payment of a $25.00 debt.

In patients over forty who had sigmoidoscopic examination, only 33 per cent had no ano-rectal disease. Hemorrhoids were present in 20 per cent, pruritus in 5 per cent, fissures in 2 per cent, polyps in 6 per cent, and carcinoma in 1.25 per cent.

The over-all cost of medical student training is about four times that of liberal arts training.

As long as seven years ago, sales of antihistamines netted about a hundred million dollars annually.

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Component Societies in Affiliation With the Missouri State Medical Association

COUNTY	DISTRICT	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
Andrew	1	V. R. Wilson	Rosendale	M. L. Holliday	Fillmore
Audrain	5	Leonard Davis	Mexico	Harold Lankford	Mexico
Barton-Dade	8	Thomas W. Carroll	Lamar	Herbert M. Arnold	Lamar
Benton	6	T. S. Reser	Cole Camp	James A. Logan	Warsaw
Boone	5	Hugh E. Stephenson	Columbia	John J. Modlin	Columbia
Buchanan	1	Allen I. Herman	St. Joseph	William B. Rost	St. Joseph
Butler-Ripley-Wayne	10	A. L. May	Poplar Bluff	Edward C. Cline	Poplar Bluff
Callaway	5	Thomas L. Johnson	Fulton	James E. Hill	Fulton
Camden	5				
Cape Girardeau	10	Hugh V. Ashley	Cape Girardeau	Gerald M. Hoxworth	Cape Girardeau
Carter-Shannon	9	H. D. Rollins	Winona		
Chariton-Macon-Monroe-Randolph	2	W. D. Chute	Moberly	Robert H. Young	Moberly
Clay	1	James E. McCormick	North Kansas City	Robert H. Dunham	North Kansas City
Clinton	1	W. B. Spaulding	Plattsburg	J. P. Mabrey	Plattsburg
Cole	5	Byron E. Watts	Jefferson City		
Cooper	5	G. W. Winn	Boonville	T. C. Beckett	Boonville
Dallas-Hickory-Polk	8	Olin P. Griffin	Buffalo	George G. Robinson	Humansville
Dunklin	10	D. W. Croom	Malden	E. L. Spence	Kennett
Franklin-Gasconade-Warren	4	Frank G. Mays	Washington	William R. Richardson	Union
Grand River Medical Society (Caldwell-Livingston-Carroll-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Charles M. Grace	Chillicothe	Edgar A. Duffy	Trenton
Greene	8	Ronald F. Elkins	Springfield	G. Bruce Lemmon, Jr.	Springfield
Henry	6	Claude M. Thurber	Windsor	R. S. Hollingsworth	Clinton
Holt	1	F. E. Hogan	Mound City	D. C. Perry	Mound City
Howard	5	W. C. Allen	Glasgow	William A. Bloom	Fayette
Jackson	7	John H. Mayer, Jr.	Kansas City	Herbert H. Virden	Kansas City
Jasper	8	Robert E. Kirschman	Joplin	John W. Koehler	Joplin
Jefferson	4	Karl V. McKinstry	DeSoto	John F. Rutledge	Crystal City
Johnson	6	O. H. Damron	Warrensburg	Keith D. Jones	Warrensburg
Lafayette-Ray	6	Hugh S. Brady	Concordia	R. W. Riley	Lexington
Lewis-Clark-Scotland	2	J. R. Bridges	Kahoka	P. W. Jennings	Canton
Lincoln-St. Charles	4	E. J. Canty	St. Charles	Paul H. Rother	St. Charles
Marion-Ralls-Shelby	2	Sam T. Ellis	Hannibal	J. H. Walterscheid	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	James D. Butts	Rolla	M. K. Underwood	Rolla
Miller	5	W. L. Allee	Eldon	Carl T. Buehler, Jr.	Eldon
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)	10	Jack Mullen	Bonne Terre	Jack L. Foster	DesLoge
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	E. J. T. Andersen	Montgomery City	Samuel J. Byland	Wellsville
Morgan	5	J. L. Washburn	Versailles	R. R. Lyle	Versailles
Nodaway-Atchison-Gentry-Worth	1	Robert Dunshee	Maryville	Charles D. Humberd	Barnard
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Spencer L. Freeman	Kirksville	G. R. Hudson	Kirksville
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	M. C. Bowman	Neosho	A. J. Graves	Mount Vernon
Pemiscot	10	Joseph H. Poff	Caruthersville	John K. Duckworth	Hayti
Perry	10	Stanley G. Legner	Perryville	A. E. McDermott	Perryville
Pettis	6	Carl Siegel	Sedalia	Robert Stewart	Sedalia
Pike	2	John H. Hooker	Clarksville	W. Joe Martin	Louisiana
Platte	1	S. L. Durham	Dearborn	H. C. Thurman	Parkville
St. Louis City	3	A. W. Neilson	St. Louis	John P. Eberle	St. Louis
St. Louis	4	Emmett B. Drescher	St. Louis	Robert A. Mayer	St. Louis
Saline	6	B. F. Knipschild	Marshall	E. Lee McCorkle	Marshall
Semo County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Thomas C. McClure	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	Marvin L. Fowler	West Plains	Rollin H. Smith	West Plains
Webster	8	C. R. Macdonnell	Marshfield	E. G. Beers	Seymour
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	B. O. Hartwell	Drexel	J. C. Moody	Harrisonville

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SEARLE

WASHINGTON

Defeat of the Forand bill (H.R. 9467) appears to have been medicine's greatest victory as the 85th Congress closes its doors. Barring a last minute attempt to bring the issue of free medical care for social security recipients up on the House floor, the bill appeared dead as this went to press.

Unfortunately another issue that physicians were vitally interested in, the Jenkins-Keogh bills, also appeared doomed. While Chairman Byrd of the Senate Finance Committee said he expected to call hearings, the outlook appeared dim. Byrd's committee had before it the much amended version of the Keogh bill passed by the House. But the measure would have enacted the theory of federal tax deferment on income invested in retirement plans by the self-employed.

Medicine's big push to have the proposed slash in Medicare funds appears to have been a hollow victory.

Even though a Conference Committee of the House and Senate finally authorized the sum originally requested by the Defense Department spokesmen for the department immediately announced major cutbacks still would be needed in the program.

Medicare representatives from over the nation were summoned to Washington last month by the Defense Department for a briefing on coming cutbacks once the final sum was set by the legislative Conference Committee.

There were many questions as to why such sweeping changes were needed when Congress had approved the 70.2 million dollars requested by the department. Estimated cost of a fully implemented program ran around 90 million dollars.

Department spokesmen replied they merely were carrying "out the intent of Congress" that military medical facilities be utilized more completely. The military spokesmen also said they hoped to reduce the annual cost to around 60 million dollars by the end of fiscal year 1960.

The cutbacks, expected to take effect October 1, virtually would eliminate the element of free choice of physician and hospital for military dependents.

Those dependents living with their sponsor would have to receive permission (except in emergencies) from their sponsor's commanding officer before they could have their care paid for by a private physician or hospital. This permission could only be granted when proper military medical care was not available.

This could have the affect of removing a rather large number of people from the program. The Defense Department estimates that 57 per cent of the dependents live with their sponsors.

The second planned restriction would affect ALL dependents. It would eliminate the following care from civilian physicians:

- Medical care ordinarily rendered on an outpatient basis: such as treatment of injuries not requiring hospitalization; termination visits, as when a physician sees a patient in his office and turns her over to another physician for hospital care; pre- and post-surgical tests before and after hospitalization; and the two well-baby visits following delivery.

- Treatment of all nervous and mental diseases, including acute emotional disorders.

- All elective surgery.

Many attending the meeting felt the elimination of these so-called outpatient services would work a financial hardship on the wives not able to live with their husbands. They stated that dependents living with their sponsors on or near a base with a military hospital undoubtedly would get most of those services from the military hospital. (President's Page, page 996, also deals with cutbacks.)

Labor reaffirmed its support of the Forand bill, once it became apparent it would not be among the social security changes approved by the House.

George Meany, AFL-CIO president, said labor was disappointed that nothing was done with the Forand idea. But, he added, "this cannot be construed as a decision of Congress to discard this proposal."

"It is by no means a dead issue. . . . It will be a live issue as long as the problem remains unsolved, and we intend to urge the adoption of the Forand proposal along with other measures further to improve the system, as soon as the 86th Congress convenes next January."

Along this line the House Ways and Means Committee (which bottled up the Forand bill), called for a study of the various possibilities for financing medical care of the aged. A committee report called on the Secretary of the Department of Health, Education and Welfare to have the study completed by next February.

The HEW was told to place special emphasis on the possibility of increasing social security taxes to finance purchase (through private or nonprofit organizations) of health insurance which would go into effect upon retirement.

The social security changes approved by the House would raise basic benefits 7 per cent and increase the tax rate and tax base. The measure also

(Continued on page 961)

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Across Missouri

Sen. Michael Kinney, Missouri's senior legislator, seems to be the principal voice of moderation in the big push that apparently is developing among state officials to increase state taxes.

While others categorically tick off tax boosts they feel are needed, he calls on the state government to protect the public's money.

"The citizens of Missouri," he said in a statement, "are being pushed toward higher state taxes by loose talk from administrators of some state agencies and institutions and by groups interested in certain state services."

The St. Louis Democrat, a senator since 1913, frequently has opposed public spending. He is one of the leaders of the Missouri Senate economy bloc. It is felt this group will have a job on its hands when the General Assembly opens its doors again in January for the 5-month session.

ON FIRM GROUND

The senator's economy stand, however, appears to have good statistical backing.

Just two days after he chided the spokesmen for higher taxes, Gov. James T. Blair announced that industrial expansion for the state for the first six months of 1958 was ahead of last year.

The governor said the total new money invested in Missouri was more than 145 million dollars during the 6-month period, an increase of 11 per cent over the same period in 1957. He added that Missouri probably is the only state that continued its industrial expansion in the face of the recession.

On the subject of what did the industrial growth have to do with the nationwide recession, the governor reportedly quipped: "What recession?"

RETURNS TO BE UP

More specifically perhaps, tax department officials also have announced that the sales and income tax returns will be larger for the 1957-58 fiscal year than had been anticipated.

On the other side of the fence, some of the lawmakers believe an additional 50 million dollars must be raised by the coming Legislature to meet the growing demands of state government.

Governor Blair is among those who have stated that new or increased taxes, or both, will be necessary next year. Others saying the same include James M. Robertson, chairman of the State Tax Commission, and Rex Whitton, chief engineer for the Highway Department.

Health needs are high on the list of reasons given for the needed hikes. They include mental hospitals, administration of nursing homes, investigation of hospitals and other institutions, the geriatrics program and many other matters.

WANTS 30 MILLION MORE

The state also is being urged to pick up a larger share of the cost of the school system. Hubert Wheeler, state commissioner of education, recommended the state's share be boosted from three-eighths to one-half. This boost in the school foundation program would cost an additional 30 million dollars a year, he estimated.

Virtually all of the state's branches and departments are expected to ask for increased funds. For example, to fully finance a Vendor program that is sure to be introduced would cost 7 million dollars. The other half of the money to provide medical care for those on indigent rolls would come from federal tax monies—which also must originate with the individual taxpayer.

Just where and how to get the needed money, hasn't been spelled out completely.

PROBABLY ON THE LIST

Obvious sources include increasing the state income tax now yielding about 50 million dollars a year and the 2 per cent sales tax that brings in about 105 million.

Missouri also has one of the lowest gasoline taxes in the United States, at 3 cents a gallon. Increasing valuations on property taxes also undoubtedly will come for consideration.

The clamor for higher taxes is not unique to Missouri, according to Economist Sylvia Porter. She predicts that 1959 will see state tax boosts all over the nation. She said:

"The states are now spending four times as much as in 1946. Between fiscal 1956 and fiscal 1957 state spending jumped 11.8 per cent to a record 21 billion dollars, almost three times the increase in federal government spending."

Missouri's annual budget already has passed the 500-million-dollar mark.

Another issue that will get a good airing at the next Legislature is Governor Blair's proposal to increase the age limit for motor car drivers from 16 to 18 years.

"I know this won't be popular, especially with a lot of young people," he predicted.

Still another hot issue, but one that will be settled at the polls in November, is the subject of branch banking.

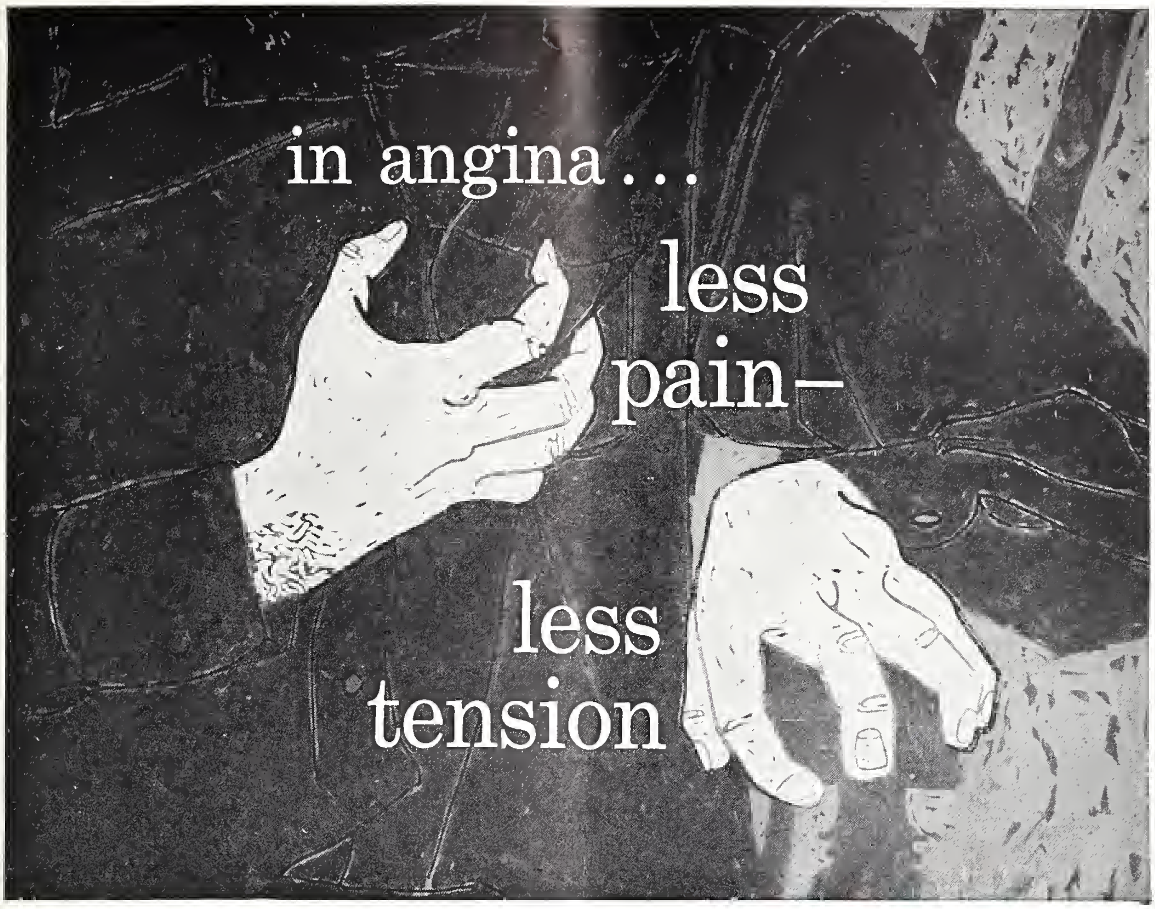
Backers of the proposal had no trouble in securing the required number of signatures to submit the issue in an initiative petition at the coming general election.

But whether they can sell it to the voters will remain to be seen. The issue doesn't follow political lines. Instead it tends to separate the city vote from the country vote. At least, it appears to have done that within the banking ranks.

Reportedly 510 of Missouri's 612 banks are against the proposal that is getting its biggest backing in St. Louis and Kansas City.

The proposed constitutional change would authorize banks to open branches in the county where the parent bank is located. Banks in St.

(Continued on page 961)



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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

Dosage and Supplied: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100.

CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

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Missouri Academy of General Practice

J. H. Trolinger, M.D.

There is always a certain understandable temptation for anyone designated by a medical group to publicize its scientific programs to employ superlatives with more abandon than discretion in his efforts to swell attendance. Perhaps there is a latent streak of the huckster in the most conservative of us.

With these, and other considered factors in mind, I am convinced that only the strongest superlatives are warranted in discussing the merits of the 10th Annual Scientific Assembly of the Missouri Academy of General Practice to be held at the Chase Hotel, St. Louis, October 18 and 19, 1958 (program on page 952).

Chairman Wyeth Hamlin and his Education Committee appear to have exceeded this year even the brilliantly successful program they supplied last year. It is difficult to conceive a more clinically practical yet intellectually stimulating fare. This observer has never before seen a scientific program so precisely tailored to the clinical interest and educational needs of the general practitioner.

This program's outline also offers convincing evidence that the same discernment exercised in the choice of subjects is also reflected in the salutary selection of speakers—clinicians chosen for their platform proficiency as well as their established clinical excellence and renown.

To highlight the President's Installation Banquet will come an address by the internationally famous Dr. Morris Fishbein of Chicago—an occasionally controversial, but always brilliant speaker. It seems quite unlikely that there is a physician living today capable of speaking with his perspicacity and fluency from an experience so broad in medical organization, literature and education. Few men, indeed, are so widely traveled, so universally well-read, or of so many and various interests in the arts as well as the sciences. He has a personal acquaintance with the greats and near-greats in all walks and in many countries. His contributions to medical literature seem endless; his editorials and his "Dr. Pepy's Diary" remain classic.

Another feature of the President's Installation Banquet will be a ceremony presenting the M.A.G.P.'s first Annual Award for Outstanding Leadership in the Improvement of Health Care in the state of Missouri. From an imposing list of eminent Missourians who have made notable contributions to the improvement of health in our state the Board of Directors sagaciously selected the name of Senator Albert M. Spradling, Jr., of Cape Girardeau.

Albert M. Spradling, Jr. (Democrat), Senator from the Twenty-seventh District, was born on March 13, 1920, in Cape Girardeau. He attended the Cape Girardeau Public Schools, Southeast Missouri State College, Cape Girardeau, and the University of Missouri. He has an LL.B. degree. On July 9, 1943, he was married to Miss Margaret Whyman of Los Angeles, California, at Tyler, Texas. They have two sons—Albert M., III, aged 9 years, and Robert Whyman, aged 7. He practiced law with his father, A. M. Spradling, under the firm name of Spradling and Spradling in 1942. He served as a special agent for the Federal Bureau of Investigation from 1942 to 1945. In October, 1945, he entered into practice of law with Elmer A. Strom under the firm name of Strom and Spradling. He was appointed city attorney of Cape Girardeau and served in this office from 1948 until 1952 when he was elected to complete the term of Senator D. W. Gilmore, who resigned. He is a member of the Baptist Church, St. Mark's Lodge No. 93, Ancient Free and Accepted Masonry; Wilson Chapter No. 75, Royal Arch Masons; Cape Council No. 20; Royal and Select Master; Cape Girardeau Commandery No. 55, Knights Templar; and the Kiwanis Club of Cape Girardeau. He was reelected to a full term in the Senate in 1952, and 1956. In the Sixty-ninth General Assembly, he served as chairman of the committee on Public Health and Welfare; and member of Judiciary; Labor; Appropriations; Ways and Means; Aviation, Water and Natural Resources, and Mental Health.

Senator Spradling was recently honored by the *Globe-Democrat* with the Meritorious Public Service Award for the Senator who has shown the greatest growth in leadership.

Mr. Spradling is an active member of the Board of Trustees of the Southeast Missouri Hospital. Among his legislative labors in the interests of Missouri health and medicine have been his efforts as sponsor or cosponsor of legislation in the following fields: (1) the mental hygiene bill relating to mental health and the state hospitals; (2) a bill greatly simplifying and expediting the admission of the acutely ill to a state hospital; (3) the act establishing our new Mental Health Commission; (4) the bill raising the standards of nursing homes by requiring their inspection and licensure; (5) other activity involving the rewriting and bringing up to date of the state's narcotic regulations, temporary licensure of physicians under certain circumstances, and a single modern medical practice license.

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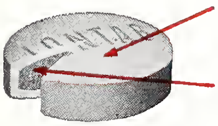

Special outer shell releases 33 mg. Pyribenzamine hydrochloride within 10 minutes.

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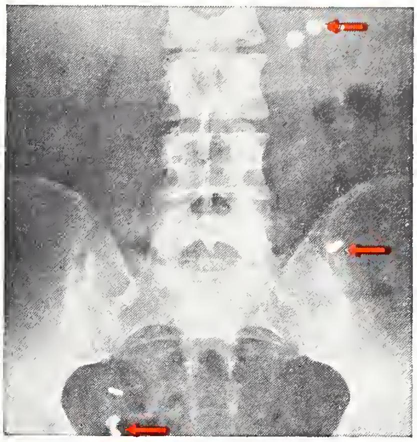
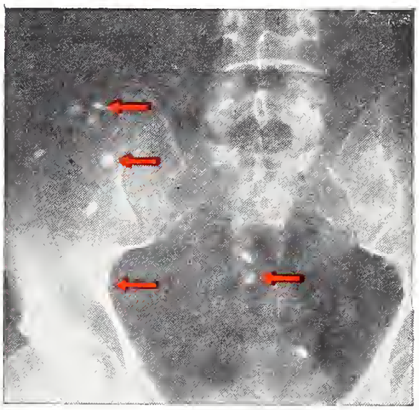
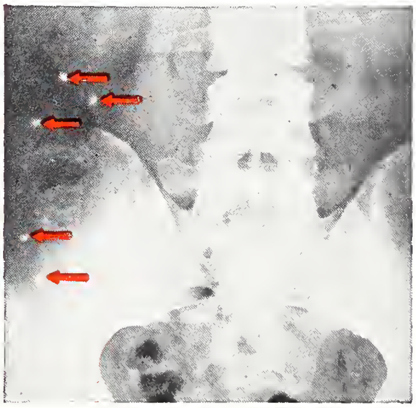
2 hours Lontabs are in the stomach and small bowel. Release of core substance is well under way.



4 hours Lontabs are in the ileum and cecum as core has steadily eroded.



8 hours Lontabs are still visible as substance of core continues to be released.



MAGP Scientific Assembly

The Missouri Academy of General Practice will hold its 10th Annual Scientific Assembly on October 18 and 19 at the Chase Hotel, St. Louis. This is acceptable for ten hours category I postgraduate credit for AAGP members.

PROGRAM

Friday, October 17, Daylight Saving Time

7:00 p.m. Business session with Board of Trustees.

Saturday, October 18, Daylight Saving Time

9:00 a.m. Business Session.

SYMPOSIUM ON OFFICE PROCEDURES

10:15 a.m. Office Immunizations, C. Read Boles, M.D., Washington University, St. Louis.

10:35 a.m. Repair of Face Lacerations in the Office, F. X. Paletta, M.D., St. Louis University, St. Louis.

10:55 a.m. Office Evaluation of Chronic Lung Disease, Paul Seebohm, M.D., University of Iowa, Iowa City.

11:15 a.m. Sigmoidoscopic Examination in the Office, Sim F. Beam, M.D., Washington University, St. Louis.

11:35 a.m. Panel Discussion.

12:00 noon Lunch and Visit Exhibits.

SYMPOSIUM ON GYNECOLOGY

1:30 p.m. The Value of the Papanicolaou Smear in the Diagnosis of Early Carcinoma of the Cervix, J. S. Roden, M.D., University of Missouri, Columbia.

1:50 p.m. Surgical Management of Carcinoma of the Cervix, Joseph W. Kelso, M.D., University of Oklahoma, Oklahoma City.

2:10 p.m. Congenital Anomalies of the Female Genital Tract, Charles R. Gulick, M.D., Washington University, St. Louis.

2:30 p.m. Therapy of Vulvar Disease, H. Close Hesseltine, M.D., University of Chicago, Chicago.

2:50 p.m. Visit Exhibits.

3:20 p.m. Multiple Pregnancy Wastage—Congenital Causes and Corrective Treatment, William H. Masters, M.D., Washington University, St. Louis.

3:40 p.m. Troublesome Problems in a Gynecologist's Office, Joseph W. Kelso, M.D.

4:00 p.m. The Diagnosis and Management of Pelvic Endometriosis, Joseph A. Hardy, M.D., St. Louis University, St. Louis.

4:20 p.m. Cervical Disease—Role of Surgery, H. Close Hesseltine, M.D.

4:30 p.m. Panel Discussion.

7:30 p.m. President's Installation Banquet.
Speaker: Dr. Morris Fishbein, Chicago.

Sunday, October 19, Daylight Saving Time

SYMPOSIUM ON MEDICINE

9:00 a.m. Fever of Undetermined Origin, Joseph V. Finnegan, M.D., St. Louis University, St. Louis.

9:20 a.m. Special Technics in the Diagnosis of Thoracic Disease, Bruce E. Douglass, M.D., Mayo Clinic, Rochester.

9:40 a.m. Cardiac Emergencies, Thomas M. Durant, M.D., Temple University, Philadelphia.

10:00 a.m. Problems in Adolescent Growth and Sex Development, Cyril M. MacBryde, M.D., Washington University, St. Louis.

10:20 a.m. Visit Exhibits.

10:50 a.m. The Caprices of Bronchogenic Carcinoma, Bruce E. Douglass, M.D.

11:10 a.m. The Diagnosis and Management of Pericardial Disease, Thomas M. Durant, M.D.

11:30 a.m. Panel Discussion.

12:00 noon Lunch and Visit Exhibits.

SYMPOSIUM ON PEDIATRICS

1:30 p.m. Chronic Lung Disease in Childhood, Katharine Dodd, M.D., University of Louisville, Louisville.

1:50 p.m. Current Practices in Infant Feeding, Robert L. Jackson, M.D., University of Missouri, Columbia.

2:10 p.m. Adolescence. Metabolic and Nutritional Studies, Joseph A. Johnston, M.D., Henry Ford Hospital, Detroit.

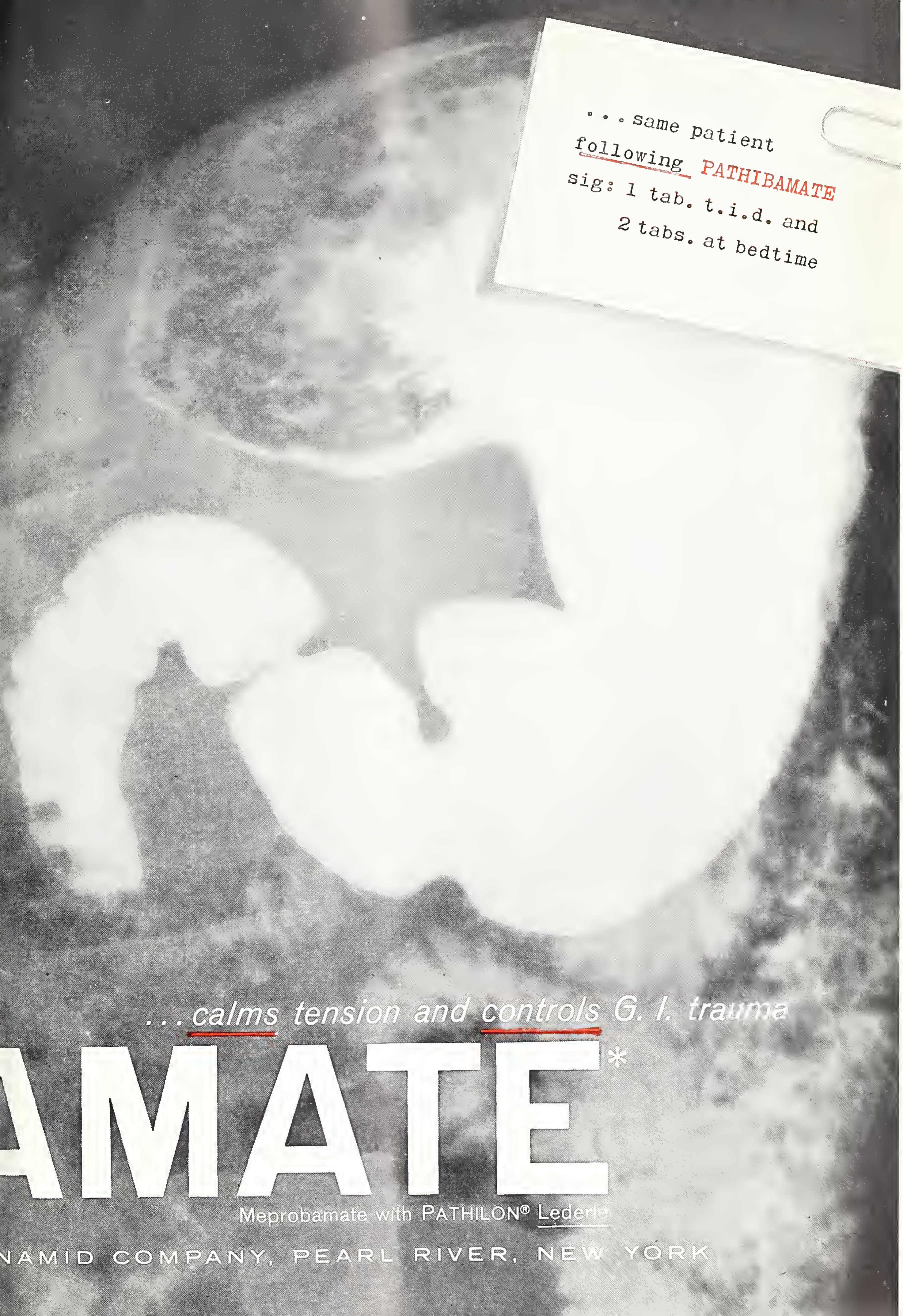
2:30 p.m. Visit Exhibits.

3:00 p.m. Prolonged Fever in Childhood, Katharine Dodd, M.D.

3:20 p.m. The Tonsil and Adenoid Question, Joseph A. Johnston, M.D.

3:40 p.m. The Cerebral Palsied Child, Peter G. Danis, M.D., St. Louis University, St. Louis.

4:00 p.m. Panel Discussion.



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Missouri Division of Health

H. M. Hardwicke, M.D., *Acting Director*

VETERINARY PUBLIC HEALTH

Because of the large number of diseases which may be transmitted from animals to man and because of the relatively high incidence of these transmissible diseases in certain animal colonies in Missouri, it has been determined to establish a bureau of Veterinary Public Health. Dr. E. R. Price, D.V.M., will be the director of this new bureau. The bureau will work closely with public health laboratories, schools of medicine and veterinary schools within the state in order to develop a broad program aimed at increasing health protection for citizens of Missouri.

Plans are being formulated to develop the program on a district level with the possible employment of a public health veterinarian in each of the six district offices in Missouri. Plans have been submitted to the Bureau of Food and Drug Administration and the district veterinarian would be responsible for all veterinary public health problems, including meat inspection.

RABIES CONTINUES TO STRIKE

An attempt will be made, in cooperation with the state veterinarian, Conservation Commission, and Wildlife groups to write an adequate dog control law for presentation and adoption at the next assembly of the legislature.

The occurrence of rabies in Missouri from year to year results in a wave-like curve with peaks of high incidence and depressions of infrequent cases.

Several factors have contributed to this situation. There are large numbers of unowned dogs which are permitted to roam streets and countryside. These straying animals tend to perpetrate a possible rabies epidemic in any community.

The estimated dog population of Missouri is variable, however. If national dog population figures used by dog magazines are apportioned according to human population (1 dog to 7 people) and applied to this state, one arrives at a total estimate of approximately 643,000 dogs. The United States Public Health Service states that to suppress a rabies epidemic it is necessary to have more than 70 per cent of the dogs in a community vaccinated against rabies. Obviously, to maintain this suppression, at least 70 per cent of the dog population must be continually in an immunized status. Because no anti-rabies vaccine is yet known which will cause a dog to develop life-long immunity, it is necessary to revaccinate periodically against this disease.

Assistance will be rendered, upon request, to local health departments, deputy state veterinarians, as well as veterinarians in private practice in the control of rabies. Rabies control will also be promoted in counties having a high incidence which do not have a local health department, including those counties having only nursing services.

Research has been instituted at Missouri University and the Division of Health Laboratory to ascertain the part bats play as a possible reservoir of rabies in Missouri.

A wildlife rabies pamphlet primarily for children but applicable for adults is being prepared for distribution to 4-H clubs, Boy and Girl Scouts and other organizations. This book will also include first aid for snake bites.

In cooperation with the Bureau of Food and Drug Administration, an adequate meat inspection law has been developed and presented to the Missouri Legislature.

This will be a voluntary program and will be divided into two parts: (1) red meat (beef, pork and lamb), (2) white meat (chicken, turkey and rabbit). Each of these are further divided into: (a) minimun sanitation requirements, (b) actual inspection of the meat and/or meat products.

LEPTOSPIROSIS

Of increasing concern to the Division of Health is the rising incidence of leptospirosis. One hundred and four cattle herds have been reported as having positive reactions in the last six months by the Missouri University School of Medicine and the School of Veterinary Medicine.

The most common source is urine of chronically infected animals and possibly infected tissues. Reservoirs include cattle, dogs, swin, rats and other wild rodents.

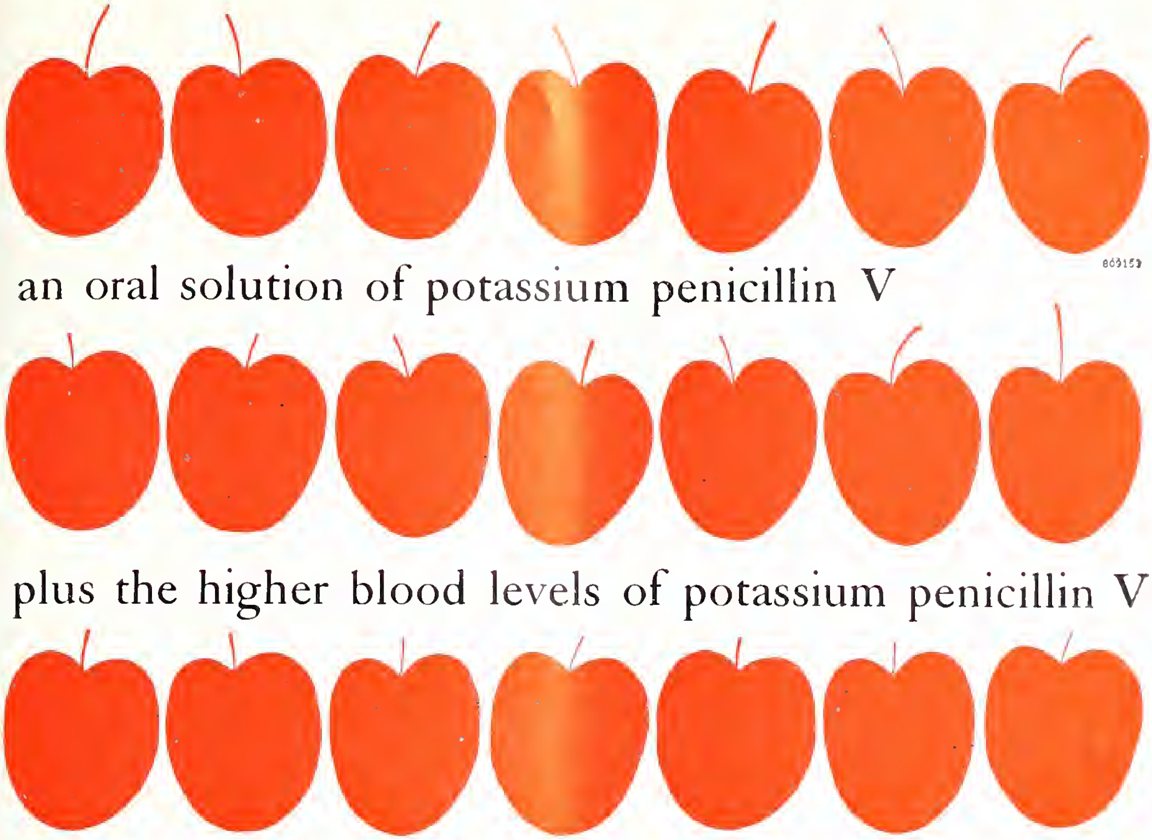
Mode of transmission is contact with water contaminated with urine or infected animals, as in swimming or accidental immersion, or direct contact with infected animals. Infection presumably results from penetration of abraded skin or mucous membrane, or possibly from ingestion.

Incubation period is four to 19 days, usually 10 days.

Outbreaks among swimmers exposed to contaminated waters are reported with increasing frequency. It is an occupational hazard to veterinarians, animal husbandmen, abattoir workers, fish workers, and those who live or work in rat-infested premises.

Epidemiologic investigations of known herd in-

(Continued on page 1014)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Now, for oral administration, Compocillin-VK Granules offer you a solution of potassium penicillin V. Developed by Abbott Laboratories, the granules are dry and easily reconstituted with water.

The clear, red solution has a fresh, cherry flavor, is taste-tested and is well-accepted by patients. And they'll get those high potassium penicillin V blood levels (note chart).

Compocillin-VK is indicated for all infections susceptible to oral penicillin therapy. Also, in treating recurring rheumatic fever and in managing rheumatic carditis. Compocillin-VK may be used in counteracting complications from severe viral attacks.

The initial recommended dose: In acute infections, the range is from 125 mg. (200,000 units) three times daily to 250 mg. (400,000 units) every four hours. For young children, the adult dose may be reduced in proportion to age and weight. For prophylactic use, 125 mg. (200,000 units) may be administered once or twice daily.

Compocillin-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of the reconstituted solution represents 125 mg. (200,000 units) of potassium penicillin V. The dry granules stay stable under ordinary room temperatures. When reconstituted, the solution will remain potent for two weeks under refrigeration.

Abbott

Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

President Overholzer has appointed Dr. Franklin E. Murphy, Kansas City, Councilor of the 13th District, to act as Chairman of the Judicial Council and of the Executive Committee, to fill the vacancy caused by Dr. McComas being called into active service in the Army.

St. Joseph Health Department has begun the publication of a monthly bulletin for distribution among the citizens to inform the people about health conditions. This is a progressive movement and was initiated by Dr. H. DeLameter, City Health Officer, who will edit the publication.

Surgeon-General Gorgas estimates that the new law increasing the rank of commissioned officers in the Medical Reserve Corps of the Army will give ranks in that corps as follows: 2 major-generals, 4 brigadier-generals, 675 colonels, 1,158 lieutenant-colonels, 5,063 majors, 14,374 captains and lieutenants.

Dr. Mazyck P. Ravenel, Columbia, professor of preventive medicine at the State University, who was commissioned major in the Medical Reserve Corps some time ago, has recently been promoted to the rank of lieutenant-colonel, National Army. He is located at Headquarters of the 40th Division, Camp Kearny, Calif.

The Welfare Board of St. Joseph, of which Dr. Daniel is Chairman received a check from the trustees of the Noyes Hospital recently refunding to the board the amount it had paid to the hospital for the care of indigent sick during the six months ending January 31, 1918. The trustees requested that the amount of money refunded be not disclosed. It represented a considerable sum and will enable the welfare board to extend relief in other directions.

Governor Gardner has appointed Dr. A. W. McAlester, Columbia, a member of the State Board of Health to take the place of Dr. J. W. Ferguson who has joined the Medical Reserve Corps of the Army. The governor also reappointed Dr. E. P. North of St. Louis, Dr. T. A. Son of Bonne Terre, Dr. T. H. Wilcoxen of Bowling Green, whose terms expired July 1. The members of the board are: Dr. W. A. Clark, Jefferson City; Dr. T. W. Cotton, Van Buren, and George H. Jones, Jefferson City, secretary of the Board.

Dr. A. R. McComas of Sturgeon, Councilor of the 9th District, and Chairman of the Judicial Council, has been called into active service and assigned to take charge of a surgical ward at the post hospital, Fort Leavenworth. His friends tendered him a farewell dinner at Sturgeon on July 11. He was commissioned as captain. Other officers of the Association who have been recently called to the service are: Dr. W. J. Ferguson of Sedalia, councilor of the 17th District, captain, assigned to Fort Oglethorpe; Dr. A. H. Hamel of St. Louis, councilor of the 20th District, captain, assigned to Fort Benjamin Harrison.

TWENTY-FIVE YEARS AGO

Early in August, flashing into the public consciousness with the dramatic suddeness of a major catastrophe, an epidemic of encephalitis appeared in St. Louis County, particularly that part immediately adjacent to the City of St. Louis. within less than a month 302 cases had been reported, the death rate varing from about 10 per cent in the city to 15 per cent in the county cases. This is all the more remarkable because no unusual prevalence of encephalitis had been reported elsewhere in the United States and existence was unsuspected in this vicinity until a large number of cases developed.

The St. Louis County Court appointed Dr. W. G. Patton, St. Louis, superintendent of the St. Louis County Hospital on August 3 to serve until December 31, 1934. Dr. Patton has served as superintendent since March 1, 1933, but at that time no definite term of office had been established, the court reserving the right to remove him at its pleasure.

The cost of rabies control in St. Louis was cut from $2,452 in April to $513 in July. Dr. Downey L. Harris, St. Louis, authority on rabies who was appointed on July 11 to take charge of rabies control in the city, attributed the decrease in cost to the elimination of stray dogs since every person bitten by a dog that could not be caught and held for observation was compelled to take preventive treatment.

A resolution commending the work of Dr. Max Starkloff, for thirty-two years Health Commissioner of St. Louis, was adopted by the Advisory Committee on Medical Affairs to Mayor Dickmann and presented to Dr. Starkloff July 25.

TEN YEARS AGO

The House of Delegates of the Association felt sufficiently strongly on two matters that Delegates to the American Medical Association were instructed to present them to that House of Delegates.

One was the practice of medicine by medical schools which it was felt is definitely a detriment to the best medical practice. The resolution was presented to the House of Delegates of the American Medical Association by Howard B. Goodrich, M.D., Hannibal, a Missouri Delegate.

Two laws have been enacted by Congress which are of major interest to members of the profession. The Selective Service Act of 1948 provides for the registration of all men between the ages of 18 and 26. The law provides that physicians who have not reached their 26th birthday may be drafted unless they apply for commission. The Congress generally agreed that physicians who were assisted by the government in securing their medical education should be the first to contribute their services.

Paul A. Knepper, M.D., St. Joseph, and W. O. Finney, M.D., Chaffee, have been reappointed by the Governor to the State Board of Medical Examiners for a four year term.

L. C. Calvert, M.D., Weston, was installed as president of the Weston Rotary Club on July 9. The first regional Red Cross blood center in Missouri was dedicated in Springfield on July 30. Raymond F. Barnes, M.D., St. Louis, administrator of the medical and health services of the midwestern area, American Red Cross, was present for the ceremonies. Wallis Smith, M.D., Springfield, expressed the appreciation of the medical profession for the service at the dedication.

Washington

(*Continued from page 944*)

would give the states greater flexibility in use of federal funds for financing the medical care of the aged, the blind, the disabled and dependent children (Vendor program). There would be no distinction between recipient payments and Vendor payments.

Enactment of the legislation would mean that the 11,8000,000 persons on social security rolls would get an increase of 7 per cent in their benefits, starting in December. The minimum increase would be $3.00 a month a person.

The first $4,800 of employment income would be subject to the social security tax, instead of the present $4,200. The tax rate also would be increased in 1959 one-quarter of one per cent each for the worker and his boss from the present 2¼ to 2½ per cent. The self-employed's tax would go from 3⅜ to 3¾ per cent.

Under the Vendor-aspect of the bill (H.R. 13549), the federal government would raise the allowable ceiling under which it will participate for public assistance cases from $60 to $66 a month. Now the federal government will not share in welfare costs above the $60 limit except through the enactment of special Vendor legislation by each state.

The Budget Bureau has called on the House Veterans Affairs Committee for a clarification of the responsibility of the government to the veteran who needs medical care. The bureau has been accused of holding up VA funds.

The general labor bill designed to bring some reforms appeared to be dead for the session, with everyone blaming someone else for its death. Some leading Democrats were blaming the National Association of Manufactures, while Republicans were blaming labor lobbyists.

A White House Conference on Aging appeared assured as the session entered its final days. The bill, designed to help find answers to the old age problem, calls for a meeting before September 30, 1960.

Each state would be authorized up to $50,000 for meetings to develop facts and prepare recommendations for the national session. The Secretary of Welfare would be in charge of the conference.

A humane livestock slaughter bill also appeared virtually certain of passage. The bill forbids federal agencies to buy meat products from a slaughterhouse or livestock processing plant which fails to comply.

Across Missouri

(*Continued from page 948*)

Louis and Kansas City would be authorized to open branches in an urban zone extending 12 miles beyond the corporate zone.

Seventeen nursing homes have been cited for violation of the 1957 nursing home law.

The state's division of health had allowed nearly twice the 6-months grace period permitted the operators to bring their homes into compliance.

Only about 200 of 750 homes in operation before the 1957 act went into effect have been approved and licensed. So far several hundred have been closed, many of them voluntarily.

Missouri might possibly lose one of its 11 seats in Congress in 1960, the Census Bureau said. Seats to the House of Representatives are reapportioned every 10 years on the basis of population change.

It is predicted that Missouri will have a total population of 4,456,000 in 1960, as compared with the 1950 total of 3,954,653. Apparently even though Missourians have been growing in numbers, they have been outstripped by the national average.

Illinois, Iowa and Kansas are among states that also might lose single seats. Arkansas stands to lose two.

The 1960 census will be taken starting April 1

(*Continued on page 1014*)

Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

Some time in the past in the development of flying, the scientist decided to study the bumblebee to see if they could learn more about the problems of flying. After a sincere study their conclusion was "the bee cannot fly." Even without pollen, his body is much too heavy in comparison with his wing weight and span. But the bee does not know this—so he continues to fly. I believe that we can apply this to some facets of our Auxiliary work. Sometimes we need to ignore the fact that it cannot be done—or has not been done—and just get busy and do it.

Recently I wrote the President of MSMA and the Secretary and asked them some questions concerning what they would like us to stress and what we could do that would serve best at this time. I received assurance that they have great confidence in our activities and that they appreciate sincerely our efforts. The one preferred project seemed to be the American Medical Education Foundation work. The Auxiliary can be effective with the public from an educational standpoint and this work will help in legislative programs. The project itself is a needy one.

The Fall Board Meeting will be held in St. Joseph on September 16 and 17 and Buchanan County Auxiliary has invited the men to come with their wives. I hope this will be a real "learning" experience in Auxiliary work. This will be a different type meeting—one in which all will have a part. We will divide into small discussion groups on Tuesday afternoon and have "resource" people visit with the groups and answer questions. The resource people will be Mrs. Paul Rauchenbach of New Jersey as conference leader; Mrs. C. H. Flynn, National Program Chairman; Mr. Bill Logan, MSMA, to explain and help with legislative programs; Mr. Ray McIntyre to assist in organizational problems; Mrs. Susan Shepherd, who serves on the Safety Council of St. Louis. The men will be included in a cocktail party, banquet and entertainment on Tuesday evening. Several groups will present skits or demonstrations for entertainment alone or to show some clever stunt presented within their Auxiliary which might be adaptable to other groups. On Wednesday morning reports will be given and business conducted. The film "Helping Hands for Julie," which was introduced at the meeting in San Francisco, will be presented. Much material sent by the AMA Auxiliary will be available.

At the National Meeting it was stressed again that we are part of the parent organization and must not try to be our own. If a suggestion comes from National or directive from the state, it does not mean it must be carried out if it does not please the immediate local parent organization. This means that one group may carry on activities that another group could not. So remember that the program is compiled for all and each Auxiliary need only adopt and use that which is acceptable to the local County Medical Society. The fact that another group does something that you are not doing and cannot do does not make it wrong. We have an enormous scope so we can select the acceptable projects. The program must be written to fit all needs. For instance, one county has 1,700 members (Los Angeles) and one in Missouri has eight. So the flexible program needs careful adjustment to make it usable by all.

Our National President, Mrs. Underwood, states her year's objective as "Safeguard Today's Health for Tomorrow." This shows that our concern is for the individual—we are a service group—trying in our way to share the good that we know with the people around us. "For," she says, "The individual's being well determines the communities' well-being." Mrs. Underwood has stated her priority projects as the AMEF, recruitment to the paramedical fields, *Today's Health* and safety in all situations.

"Things turn up for him who digs" someone said. So be sure and come to the Fall Board Meeting, September 16 and 17, and see if we can dig up any new ideas.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 September, 1958 Number 9

Metastatic Carcinoma of the Brain

The Teachenor Lecture

LEONARD T. FURLOW, M.D., *St. Louis*

I CONSIDER IT a great honor to be here tonight as the first Teachenor Lecturer. It is a privilege which is not in any sense justified by my intellectual attainments, and I am certain that all of the future lecturers will be far ahead of me in scientific achievement. I was, however, delighted to accept this assignment, for I want to pay my personal respects to the memory of Frank Teachenor, and I thought it right and proper that, at least for the first time this lecture is given, it should be by someone who knew him.

He died as he lived—quietly, rather gently, and without causing trouble or bother for anyone—but for many years to come, he will be missed by patients who loved him, colleagues who respected him, and friends and acquaintances who were charmed by his sincerity and humility. Actually, his would not, by many, be considered a happy life. Personal sorrow in the loss of his son and his beloved wife, disabling and painful illnesses of various sorts, would have made of a less sturdy soul a bitter man. But Dr. Teachenor had the faculty of losing some of his own sorrow in the constant search for means of benefiting his patients, and to the end he remained a family doctor turned specialist—for to him each patient was a whole person with problems which might or might not have a bearing on the brain, the spinal cord, or the peripheral nerves. Those problems, relevant or not, were discussed and considered, for this kind man was interested in the individual patient as well as scientific advances.

Some of these attributes might have been the result of his training, for it was not as narrow as that of many younger specialists of today. He was first a doctor, then a general surgeon and, finally, a neurosurgeon who learned much of neurology by reading, observation and natural intelligence. What he learned he wished to share, so he set up a training program in neurological surgery, and there are here tonight, and in places far removed, men who owe much to his memory for their privilege of daily association.

The late Frank R. Teachenor, M.D.

He was a man honored in his own city by being elevated to the presidency of the Jackson County Medical Society, and honored abroad by being selected for the same office in the Western Surgical Society and the Harvey Cushing Society. He was honored by his Alma Mater, the University of

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From the Department of Neurological Surgery, Washington University Medical School, and the Barnes Hospital, St. Louis.

Kansas School of Medicine, and by the American Legion. In 1953 he was given the Award of Merit by the local medical society.

Had these various honors not been publicized by the givers, they would have remained secret, for Frank Teachenor never spoke of personal achievement. It was not necessary. He lives on, in his quiet greatness, in the souls of men whom he taught, patients whom he benefited, colleagues whom he advised, and friends whom he loved. As one who knew and loved him, it is my privilege to discuss with you a problem which was also to him important, for it concerned not just the narrow scope of his specialty, but the whole person and his family—"Metastatic Carcinoma of the Brain."

METASTATIC CARCINOMA OF THE BRAIN

This discussion purposely will be confined to carcinoma for, while in this condition the overall results are discouraging, surgical efforts are even less rewarding if the primary lesion be a sarcoma, this broad classification being used to embrace the melanotic tumors.

Estimates as to the frequency with which metastatic tumors are encountered vary as one considers the source of the material presented. Most neurosurgeons have tended to exclude the patient with known primary malignancy from their operative endeavors for tumor removal. Thus, in Cuching's[1] series of 2,023 verified brain tumors, metastatic carcinoma was encountered only 48 times for a percentage of 2.3. However, he made the statement that this did not represent their true clinical incidence, for patients were not accepted for treatment if known to have primary malignancy elsewhere. In a report[2] from Olivecrona's clinic in Stockholm, 156 cases of metastatic intracranial tumor including 132 carcinomas from a series of 4,444, verified brain tumors constituted 3 per cent of the total. Bailey[3] says, "Statistics indicate that metastases to the brain from malignant tumors will be found in about 0.5 per cent necropsies.

"The percentage of primary neoplasm of the brain is perhaps 1 per cent of all tumors. This would indicate that of all intracranial neoplasms, both primary and secondary, metastases constitute perhaps 33 per cent." Earle[4] reviewed 9,720 necropsies done at the University of Texas Medical Branch, and found that 1,441 deaths were due to malignant neoplasms. Of the total number, however, only 710 brains were examined, and metastases were found in 79. If one projects the figures, it would seem that of 1,441 deaths due to malignancy, 158 or 10.89 per cent would have cerebral metastases. Of the 710 brains examined, primary malignant tumor was found in 175, indicating that metastatic tumor of the brain is about half as frequent as primary.

From these figures it seems obvious that the problem is one of common occurrence and must, therefore, be evaluated as to the results of treatment.

Although Störtebecker[2] reports hypernephroma as the most common type of metastasis, most authors[5, 6, 7, 8, 9, 10] list bronchogenic carcinoma as the most frequent in males, with breast carcinoma the leading offender in females. This is borne out in my experience, and I would like to present data on 31 patients who were operated upon during the period 1952-1957 and found to have metastatic intracranial carcinoma. I have divided these into five groups.

TABLE 1

METASTATIC CARCINOMA OF BRAIN

Group I	Carcinoma unsuspected—no primary found	6
Group II	Bronchogenic—known or unknown	16
Group III	Breast—carcinoma	4
Group IV	Squamous carcinoma—skin or mucous membrane	3
Group V	Carcinoma of kidney	2

I was surprised in reviewing these records to find that there were seven cystic lesions. It seems certain that these cysts are of the type occasionally encountered with meningiomas, and represent fluid which has been trapped between tumor and brain tissue.

The first group (table 2) are those in whom primary malignancy elsewhere was not suspected.

TABLE 2

GROUP I: CARCINOMA UNSUSPECTED—6 CASES

All males	
Average age	54 (42-61)
Chest x-ray	All negative
Significant weight loss	0
Choked disks	4
Duration of symptoms	Average 3½ months
Operative mortality	None
Average survival	3½ months
Longest survival	10 months
All died at home	No autopsies

There were six cases, all male, with an average age of 54 years, all with negative chest plates, and none with significant weight loss. Four of the six had choked disks, and all had relatively short histories indicating intracranial disease, the longest being six months, the shortest three weeks. All six survived surgery and left the hospital, most of them being markedly relieved and relatively free of symptoms, but this happy state was of short duration. The average postoperative survival was 3.5 months, one living 10 months, and the usual terminal picture was of diffuse metastatic disease. All died at home, and no necropsies were done, so the primary source remains unknown. It has been my attitude that if unquestioned metastatic carcinoma is found at surgery, tedious and expensive diagnostic procedures such as radiologic study of the gastrointestinal and genitourinary systems was unwarranted. By the time a carcinoma metastasizes to the brain, cure, in the light of present knowledge, is impossible in any event.

One cannot deny that in these patients, surgery was temporarily beneficial. The severe headache was relieved, vomiting stopped, and they were improved neurologically, but one wonders if this was entirely justified in the end. It should, however, be remembered that all of these lesions were preoperatively unsuspected, for it has long been my rule that every patient tentatively considered to have an intracranial tumor, must have a chest x-ray as a part of the diagnostic study. In almost every case, the preoperative diagnosis was glioblastoma, and the results are not greatly different than if this assumption had been correct, except that the average survival was somewhat shorter.

This raises the question as to the advisability of other preoperative examinations. I am convinced that the number is too small and most of the patients too ill to justify more study than the routine chest plate and a complete physical examination. Shannon and Morgan[11] made a comparative study of the spinal fluid protein in metastatic tumors and primary central nervous system tumors, and concluded that no differentiation could be made on the basis of spinal fluid findings.

Ethelberg and Vaernet[12] feel that it is possible in some instances to make the correct diagnosis on angiography, but this would hold only if the bilateral carotid angiography were done on the patient with a cerebral lesion. In this group of six, two were cerebellar.

It is my feeling, therefore, that the neurosurgeon will continue to find an occasional unsuspected metastatic carcinoma in the brain.

The second group (table 3) comprising slightly more than half the total, were of bronchogenic origin. There were fourteen males and two females, the average age being 54.4 years. Five of these were not suspected of having metastatic disease, for in four the chest x-ray was reported as negative, and one was said to have "increased peribronchial markings." That a "negative" chest plate may be misleading is illustrated by the following case record.

TABLE 3

GROUP II. BRONCHOGENIC—KNOWN OR UNKNOWN

16 Cases	
14 Male—2 female	
Average age	54½ (45-63)
Chest plate	11 Positive 1 "Increased peribronchial markings" 4 Negative
Significant weight loss	3 (8, 15, 16 lbs.)
Choked disks	6
Duration of symptoms	Average 1.75 months
Operative mortality	12.5% (2 cases)
Average survival	5 months
Longest survival	16 months
Pneumonectomy done post-craniotomy	6
Average survival	7 months
Longest survival	16 months

Case 1, Mrs. M. C. aged 60, was first seen on May 31, 1953. She had been in the hospital for twenty days with symptoms thought to be due to depression until it was discovered that she had bilateral choked disks. She had complained for six weeks of headache, unsteadiness of gait, and weakness of both legs, following an emotional shock.

On examination she had bilateral papilledema, weakness of the right face, arm, and leg, with right Babinski, and her speech was confused. General physicial examination was considered to be within normal limits, and x-rays of the chest (figure 1) and skull were reported as negative.

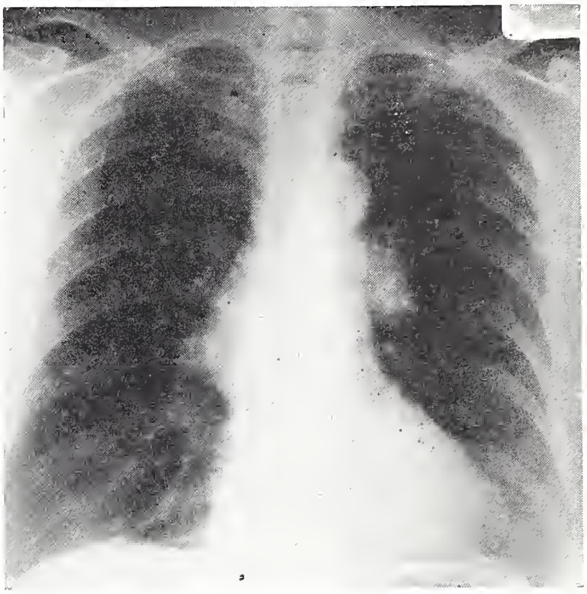

Fig. 1. Case 1. "Negative" chest plate made six weeks prior to death from widespread bronchogenic carcinoma.

On June 1, 1953, following air studies, craniotomy was done, and in the left parietal area two metastatic tumors were identified. One was cystic, the other solid but soft and necrotic in its central part. The pathologic report was metastatic carcinoma.

Her postoperative course was steadily downhill, and she expired on June 14, 1953. Autopsy showed an undifferentiated epidermoid carcinoma arising in a secondary branch of the bronchus to the upper lobe of the left lung. There was a metastatic lesion in the left upper lobe, invasion and occlusion of the superior primary branch of the left pulmonary artery, and of the left pulmonary vein. There were multiple metastatic lesions in the brain, kidneys, adrenals, and mediastinal nodes.

There was, then, an interval of less than six weeks between the chest x-ray and death. The roentgenogram was recently shown to our radiologist, and when no history was given, again he said "negative." However, when the whole story was told, he was able to identify on the film, both the primary lesion and the metastasis in the left upper lobe.

Three of the sixteen had a significant weight loss, but none had had symptoms which would specifically direct attention to the chest. Only six had choked disks, but all had had symptoms of intracranial pressure for a relatively short time, the average being seven weeks. This is the only group in which there was operative mortality. Two patients died, one on the fourteenth, the other on the seventeenth postoperative day. The average survival was five months, the longest sixteen months.

Because there have been occasional reports of relatively long survival following the removel of a metastatic carcinoma[1, 8, 13] from the brain, we have subjected six patients to a combined surgical procedure. These patients, having radiologic evidence and in some instances bronchoscopic confirmation of bronchogenic carcinoma, were studied by ventriculography to be as certain as possible that only one lesion was present. If there was no evidence of multiple lesions, the metastasis was removed. Then, as soon as the patient's condition would permit, usually on the twelfth to the eighteenth postoperative day, the chest was explored by Dr. Thomas Burford. It has been our feeling that the immediately lethal lesion is the intracranial metastasis, so the craniotomy is always the primary operation. All six patients survived both procedures, but the average survival of this group was only two months longer than the group as a whole. However, when one compares the six cases having pneumonectomy or lobectomy with the eight having only craniotomy, the survival period is seven months plus for the six and four months for the eight. This, however, is an unfair comparison, for many of the eight were judged to have an inoperable lesion by the chest surgeon. That this additional time, however, may be merely a financial and nursing burden, is illustrated by the following case:

Case 2. W. F. I., a 58 year old banker, was admitted to Barnes Hospital on Jan. 11, 1956. He complained of severe headache, present for seven days, and vomiting, almost constant for four days. He had had no weight loss, and had worked until one week prior to entry.

On examination he had no papilledema, and no specific localizing signs. Chest plate showed a bronchogenic carcinoma of the left upper lobe, but it was decided to do air studies and if there was evidence of only one lesion, to remove it.

On January 14 a solitary metastatic nodule the size of a walnut was removed from the cerebellar vermis. It was reported as undifferentiated carcinoma, metastatic.

His postoperative course was marked by hiccough, vomiting, and mental confusion for about ten days. He then rapidly improved, and in January 29 a left upper lobectomy was done by Dr. Burford. There was an area of attachment of tumor to the chest wall, and metastatic cancer in one hilar node.

He was discharged on February 21, and improved rapidly so that he returned to his work in the bank after six weeks. He felt well and continued working until September 1956, when there was recurrence of headache and vomiting, and he developed a staggering gait. He gradually became obtunded, had to be tube fed, and lived for several months as a problem in nursing care.

So, as is readily seen, eight months of this survival period was well worthwhile, but the final phase merely added burdens to an already over-loaded family.

From this group of sixteen cases, one can only conclude that the results leave much to be desired. Symptomatic relief was, in many instances, dramatic, but the period of survival was short.

The third group (table 4) consists of four cases of metastatic breast carcinoma. All were female with an average age of 46, the youngest being 37, the oldest 54. Three had negative chest films, one film was suspicious of metastatic disease but there were no pulmonary symptoms. None had significant weight loss, and all had had radical mastectomy from 18 months to 12 years previously. Both patients with the short survival period had choked disks, the other two having normal fundi. There was no operative mortality. The result in two cases was disappointing, in another good to the present, and excellent in the fourth, as shown by the following case record:

TABLE 4

GROUP III. BREAST—4 CASES

All females	
Average age	46 (37-54)
Chest x-ray	Negative 3 Positive 1
Significant weight loss	0
Previous mastectomy done	1.5, 2, 4, and 12 years previously
Local recurrence	1—7 years previously (irradiated)
Duration of symptoms	Average 7 months
Choked disks	2
Operative mortality	0
Survival	1 2 months 1 4 months 1 well after 8 mos. 1 well after 6 yrs.

Case 3. Miss M. C. J., aged, 48, secretary, on whom in December 1950, a radical mastectomy for carcinoma of the left breast was performed at Barnes Hospital by Dr. Charles Eckert. Twenty lymph nodes were removed and sectioned, and all were reported as negative. She made a good recovery, returned to work, and considered herself well until six months prior to admission when she began to have difficulty in reading. Her glasses were changed on several occasions with no permanent benefit, and a few days before admission she took shorthand notes as usual but was unable to transcribe them. At this time the opthalmologist found a right homonymous hemianopsia.

In December 1952, two years after mastectomy, she was readmitted. Her general physical examination was normal. There was no evidence of local recurrence of tumor. Neurologic examination showed only the right homonymous hemianopsia without evidence of increased intracranial pressure.

X-rays of skull and chest were normal. Films of the spine, pelvis and long bones were also normal.

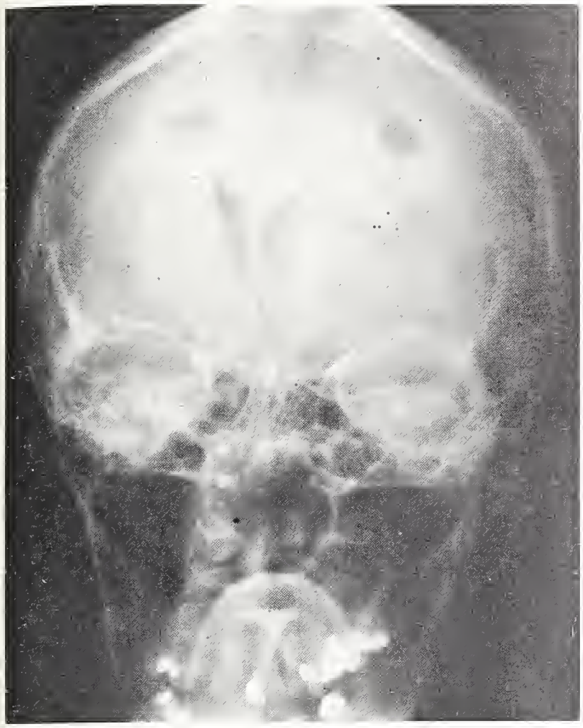

Fig. 2. Case 3. Displaced ventricles and air in cystic cavity of metastatic carcinoma.

On December 23, 1952 ventriculography was done using posterior parietal burr openings. When a needle was inserted on the left side, a cyst was entered, 15 cc. of yellow fluid removed, a small amount of air injected, and films made (figure 2). A cystic cavity of irregular outline was shown in the posterior parietal and occipital areas with marked ventricular displacement toward the right side.

Immediate craniotomy was done. A reddish tumor in the cystic cavity was removed by resection of the occipital pole and the medial portion of the posterior parietal lobe.

The patient made a prompt recovery, was discharged on January 3, 1953, and has remained completely well. She works regularly at her old job as a secretary for an officer in a bank, and has adjusted well to the right homonymous hemianopsia.

This patient illustrates well the fact that there may be much cerebral edema with marked ventricular displacement even though the actual tumor nodule is small. In spite of the evacuation of the cyst, the ventricles were still displaced, and the actual tumor nodule was no larger than the end of my thumb. This phenomenon has been commented upon by neurosurgeons, pathologists and radiologists, and has, in a few instances, in my personal experience, led to the correct diagnosis of metastatic tumor prior to craniotomy.

Another patient illustrates to an even greater degree the fact that even metastatic tumor may, at times, have a rather slowly progressive course.

Case 4. Mrs. B. aged 54, was admitted on June 26, 1957. In 1945 she had had a radical mastectomy for carcinoma of the left breast. In 1950 a recurrent tumor mass over the sternum was treated by irradiation. In 1955, she had a series of focal convulsions involving the left upper extremity without loss of consciousness. She was put on anti-convulsant medication with no recurrence of seizures until January 1957. Beginning at that time, she had at least one seizure a week, and recently they had involved the neck muscles and the leg, as well as the arm. Within two weeks prior to admission, she had developed a complete left hemiplegia, and had had increasingly severe headaches.

Her general physical examination showed no evidence of tumor recurrence. Neurologic examination showed normal fundi, but there was a complete left hemiplegia with a Babinski.

Chest x-ray (figure 3) showed a discrete rounded area of soft tissue infiltrate in the right upper lobe, while skull films were negative.

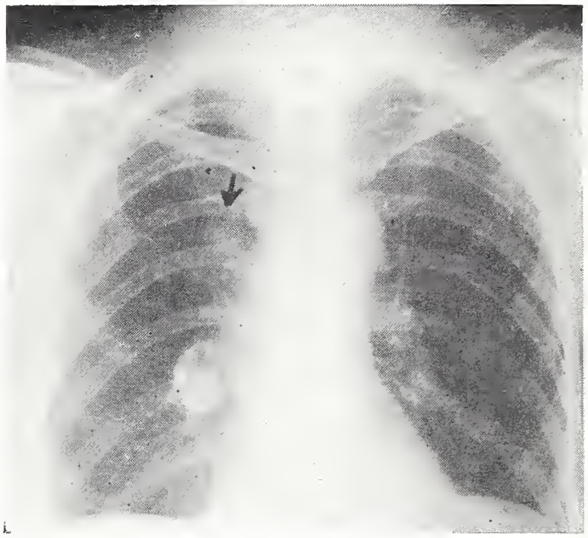

Fig. 3. Case 4. Metastatic breast carcinoma, right upper lobe.

In spite of the pulmonary lesions, her general condition was good, so, because of the left hemiplegia and increasing headache, ventriculography was done on July 1, 1957 (figure 4). A lesion in the posterior frontal area on the right was demonstrated, so immediate craniotomy was carried out. A firm tumor mass was projecting through the cortex in the premotor area. This was removed and between the base of the tumor and the white matter was 15 cc. of old liquified clot.

She was discharged on July 16, having had considerable recovery of function in the leg. She has been able to resume most of her household duties, though the function of the hand is still less than 50 per cent. She is comfortable, and has had no further convulsions.

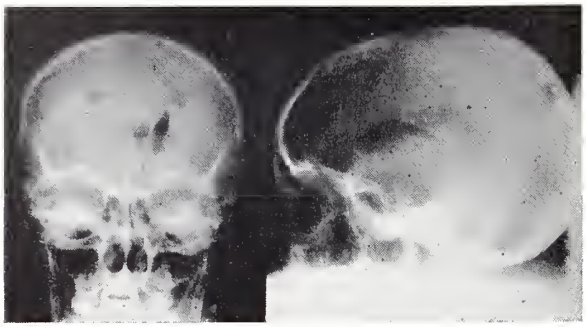

Fig. 4. Case 4. Ventricular deformity due to metastatic carcinoma, right fronto-parietal.

It is noteworthy that this patient had symptoms clearly indicating a focal lesion two years before clinical evidence of increased intracranial pressure developed. During most of this two year period the focal convulsions were controlled with anticonvulsant medication, and almost certainly the rather rapidly developing symptoms prior to admission were due more to hemorrhage than tumor. The association of hemorrhage and tumor has been unusual in this series, but common in a group of metastatic melanotic lesions.

Obviously, this woman, who has certainly one pulmonary metastasis, will eventually succumb. On the other hand, she has, at least for eight months, been able to resume her household duties, free of severe and disabling headache, and with improvement in the left hemiplegia.

The fourth group (table 5) consists of three cases of squamous carcinoma. All were males, the ages being 49, 61 and 78 years. Two had metastases from nearby sources—oral mucosa and larynx, while one had a metastatic nodule from a scrotal lesion. Two were primarily problems in pain relief from spread to the Gasserian ganglion. Of these one had a rather long period of preoperative symptoms—18 months, but only three months for the other. In both cases, the survival period was satisfactory insofar as pain relief was concerned, death in both instances being due to generalized metastases.

TABLE 5

GROUP IV. SQUAMOUS CARCINOMA—3 CASES

All males	
Primary—Oral mucosa	1
Larynx	1
Scrotum	1
Average age	63 years (49-78)
Significant weight loss	0
Duration of symptoms	7 months
Choked disks	0
Pain—metastasis to gasserian ganglion	2
Cerebral metastasis	1
Operative mortality	0
Survival	2, 6, 22 months

The third had two lesions in the lung, with a metastatic nodule in the right cerebral hemisphere. His headache was relieved, but he died of carcinomatosis six months after operation.

There is obviously little to be accomplished in this group except symptomatic relief. It has been my practice when here is definite evidence of tumor spread to the Gasserian ganglion to remove most of that structure and section the posterior root. In some instances it is preferable to use a different approach so that other nerves may be sectioned or trigeminal tractotomy done, but none of that type were seen in the period covered in this presentation.

The fifth group (table 6) consists of two cases of renal carcinoma. Both were males, one, 48 years of age, had had a nephrectomy done one year previously by Dr. Justin Cordonnier, when a renal tumor was evidenced by hematuria. The pathologic report was renal cell carcinoma. He had had severe headache and vomiting for two months, had a normal chest plate, and bilateral choked disks. He had a right frontal lobe lesion, identical pathologically with the primary tumor. He survived for 16 months, and died with generalized metastases.

TABLE 6

GROUP V. RENAL TUMORS—2 CASES

Both male	
Ages	48—65 years
Previous nephrectomy	1 and 12 years
Significant weight loss	0
Choked disks	1
Duration of symptoms	2 months and 9 months
Operative mortality	0
Survival	1 16 months 1 living and well fifth year

The second is an interesting case, worthy of more detailed report.

Case 5. W. C., aged 65, white male farmer, was admitted to Barnes Hospital on October 9, 1953. In 1941 his right kidney was removed because of a "cancer." He made a good recovery and considered himself well until January 1953 when he suddenly had a convulsive seizure which began in the right arm. He lost consciousness, but there were no clonic movements of any other parts of the body. He had had, with increasing frequency, episodes of numbness of the arm, followed by postictal paresis of thirty to sixty minutes duration. More recently, the attacks had involved the right leg as well.

General physical examination was essentially normal for his age.

Neurologic examination showed no evidence of increased intracranial pressure. The arm reflexes on the right were hyperactive and the hand was awkward in performing fine movements.

X-rays of the skull and chest were normal, and routine laboratory studies were normal.

On October 13, following air studies (figure 5) a tumor was removed, no larger than the end of my thumb, from a point midway on the convexity in the posterior portion of the left frontal lobe. The tumor

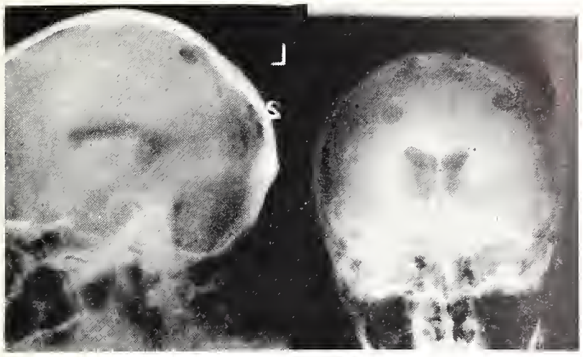

Fig. 5. Case 5. Slight deformity of ventricles due to long standing metastatic tumor in posterior part of left frontal lobe.

was undoubtedly metastatic and was consistent with a tumor of renal origin.

His postoperative course was uneventful. There was considerable increase in the weakness of his right arm and hand, but by the time of discharge on the twelfth postoperative day, this was improving.

He has remained well, and within the limits of his advancing age, is able to carry on as a farmer.

The original sections were reported as hypernephroma by the pathologist in a hospital in another state. However, the nodule removed was said by our pathologist to represent a typical papillary renal cell carcinoma.

In this case, as in two of the breast cases, a long latent period elapsed between the original tumor removal and the development of cerebral symptoms. Such a phenomenon has been reported by others. Does this mean that the metastasis has been dormant for many years? Ackerman[15] feels that no other explanation is logical. It would seem that the original focus was eliminated by excision. No evidence of recurrence of tumor elsewhere presented itself in the 12 years interval between the removal of the original tumor and the craniotomy, and no symptoms have developed in the four and a half year interval since. It is rather obvious that in many instances, cancer will act like certain infections—after a dormant period, something happens and activity is resumed. Is this metabolic, or are there local chemical tissue changes? The answer is largely unknown, but with certain types of cancer, regression is known to take place after either adrenalectomy, castration or hypophysectomy, so that general metabolic tissue growth must be considered.

It is, of course, a well recognized fact that metastatic carcinoma may present as a single or as multiple lesions in the brain. It is my feeling that if one can determine prior to surgery that multiple lesions exist, no operative interference should be undertaken. It is my policy, therefore, when a metastatic lesion is suspected, to do a ventriculogram, the situation having been previously discussed frankly with the family. If there is evidence of only one lesion it is removed, but on several occasions multiple tumors have been demonstrated, and in such an instance, no further surgery was done. Some neurosurgeons might prefer angiography as a diagnostic measure, but in my hands, ventriculography is better adapted.

Livingston, Horrax and Sachs, Jr.[14] have attempted to correlate survival with these factors: state of general nutrition, the duration of intracranial symptoms and the presence or absence of papilledema. They found 10 of 51 proven metastatic brain tumor patients who were not debilitated, had had intracranial symptoms for at least three months, and had normal fundi. Of these, seven survived the postoperative period and lived longer than six months. Five survived longer than two years. I have not been able to make such a correlation in this series, because (1) there were no truly debilitated patients accepted for surgery, (2) the bronchogenic carcinoma patient with the longest survival had had symptoms for only seven days, and (3) there did not seem to be any consistent relationship between survival time and the presence or absence of choked disks.

The operative mortality for metastatic carcinoma is said by most neurosurgeons to be high. Cushing[1] said that the mortality percentages are among the highest for any group of intracranial tumors, and cited his as 38.5 per cent case mortality. Stortebecker[2] cites 31 fatalities within 20 days for 125 cases, an operative mortality of 24.8.

In my experience, the operation, itself, has usually been a rather simple procedure if the lesion can be accurately localized. The removal is ordinarily attended by the sacrifice of a minimal amount of brain tissue, and postoperative convalescence is rapid. Of the two operative deaths, one at 14, the other at 17 days, both were women, one had obvious metastatic lesions in the lungs, the other had multiple cerebral lesions—but this fact was not obvious on ventriculography for the two larger lesions were closely approximated.

In conclusion, one must say that the overall results in the treatment of metastatic carcinoma of the brain are disappointing. Many patients and their families, however, are grateful for the relief of intractable headache and other disabling symptoms, and an occasional and unexpected excellent result may be sufficient stimulus to continue the effort. The results are certainly poorer when no primary lesion is found, or when the carcinoma arises in the lung. From my experience in this series one is not justified in subjecting the patient with metastatic bronchogenic carcinoma to combined brain and pulmonary surgery. It is, I think, wiser to be content with symptomatic relief, and this may be gratifying.

I would, therefore, agree with Grant[16] who said "Certainly headache can be relieved and the patient's last days made much more comfortable,"

Milk and Atomic Fallout

BERNARD F. TRUM, LT. COL., VC, USA, *Washington, D. C.*

STRONTIUM

THE PRESENCE of atomic fallout of 1958 and the hazards of ionizing radiations are as undeniable as the presence of visible smog and the hazards of common gases in the biosphere. The evaluation of significance will be the subject of this discourse.

May we begin with a few assumptions? First, let us assume the obvious, that this audience is a select and well read group, knows that the prefix milli means x 10^3 and micro means x 10^6, and that regardless of whether or not one may recall the number of disintegrations per second associated with a curie we know that it is a unit of quantity of radioactive material. Secondly let, us assume, not unreasonably, that those responsible for radiation health in our country are working in the public interest and are applying themselves as diligently as those considering any other potential environmental hazard. Finally, let us assume that the maximum permissible levels of radiocontamination are reasonable estimates, compatible with the environmental equilibrium of populations and subject to revision as indicated, just as any other potential hazard such as insecticides on fruit.

Accepting these assumptions we may proceed without tedious definitions of terms or endless discussion on the determination or reliability of the recommended maximum permissible levels. We know that excessive radiostrontium in the skeleton of animals may produce changes, just as the excessive drinking of milk may produce hypercalcemia and secondary renal insufficiencies.[1] However, a food is not considered to be unwholesome unless the consumption of normal amounts leads to deleterious effects. With this in mind we put the question of fallout and the fission products in the proper perspective.

The fission of an atomic nucleus, as occurs during the detonation of a weapon, produces two fission fragments. When a number of nuclei fission, the same fission fragments are not produced in each instance. About 170 different fission fragments may be expected, with 95 different masses and about 35 different chemical elements created. In this complex set of products some elements are of interest and some isotopes are of interest, while others may be disregarded because of short half lives or low biological availability. Of particular interest is the fission product strontium-90. The decay scheme is as follows: Kr-90 (33 sec.) to Rb (2.7 min.) to Sr (28 yrs.) to Y (64 hours) to Zr-90 (stable).

Weapons are described as kiloton or megaton, being classified by the yield of equivalent TNT energy. The fission of one kilogram of uranium or plutonium produces 20 kilotons of TNT equivalent energy. About 4 to 5 per cent of new fission products will be Sr-90 and this amount, while decreasing by decay, will increase in proportion to total fission products as years go by.

Nuclear detonations project fission products, together with earth debris, into the air in a manner now well known. The material, as it returns to

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From the Division of Biology and Medicine, United States Atomic Energy Commission.

Presented at the 100th Annual Session of the Missouri State Medical Association, April 16, 1958, St. Louis.

Metastatic Carcinoma (Continued)

and I will continue to hope that Oldberg[13] was correct in saying that "It may be possible to extirpate the metastasis with great relief to the patient and with prolongation of his life expectancy." My own experience would indicate, however, that prolongation of life will occur usually in the patient who develops symptoms a considerable period of time after removal of his original cancer and who has no evidence of general spread of the disease.

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earth, is called fallout. Local fallout, that which contaminates with a direct relation to distance from the site of detonation, is composed of particles of relatively large size, 5 to 35 microns, and is deposited within a few days.

Smaller particles suspended below the tropopause may remain aloft a long time unless brought down by rain or snow. Megaton weapons, however, have pushed more than one half of the fission products into the stratosphere where they have leaked slowly into the troposphere and have been deposited around the world. Most of the radioactive fission products have short half lives. A notable exception is strontium-90 with a mean life of 40 years and a half life of about 28 years. This means that about 2.5 per cent of a given quantity of strontium will decay per year. The mean stratospheric residence time may be about 10 years, or about 10 per cent of the amount aloft is returning to earth per year.[2,3]

Eisenbud[4] estimated a deposition of 20 mc of Sr-90 per square mile in the Northeastern United States by 1957. Of this, 6 mc/mi^2 was deposited before mid-1956 and the rest was stratospheric fallout.

According to Eckelmann *et al.*[5] the world contamination has resulted in an average deposition of about 0.2 su (strontium units) in the human skeleton. The average for North American or European children was about 0.7 su and adults lower by a factor of ten.

The National Committee on Radiation Protection[6] has recommended that for the general public no more than 100 $\mu\mu$c of Sr-90 per gm Ca be accumulated as a body burden. For convenience, a su or strontium unit, previously referred to as a Sunshine Unit taking its name from the worldwide monitoring program whose code name is Sunshine, has been defined as 1 $\mu\mu$c Sr-90/gm Ca.

The National Academy of Science, National Research Council[7] has stated that although it has not been determined conclusively at what level food becomes unwholesome because of radiocontamination, the present level does not constitute a serious hazard. They recognize that even low levels of radiation may have serious biological effects, but point out that the radiation added by weapons testing is but a small part of the natural background radiation. A report to the public by the National Academy of Science, National Research Council[7] states that the Sr-90 now in the skeleton of humans presumably came from milk for the most part—the result of cattle having grazed on contaminated pastures. The presumption was made on the logical sequence of biological cycling from soil to plant to gut of cow to milk and to bone of man. Although milk is a rich source of calcium in the diet of the American[8] and may, in fact, provide 80 per cent of the dietary calcium, it need not necessarily be the largest contributor of strontium-90 in his food. There is a discrimination factor of 0.13 in favor of calicum over strontium from forage to milk and of 0.5 from the milk to the bone. However, if the principal source of calcium in the human diet were garden greens and other plants which metabolize calcium and strontium without discrimination, the accretion of strontium could be higher.

The movement of strontium from the soil to plant to animal may be studied by examining the natural strontium equilibrium or by experimental investigations using radioisotopes. Because generations of mixing have resulted in an equilibrium of the soil, plants and animal tissue, certain phases of metabolism are best understood by examining the natural relation. Mobility of elements is most efficiently studied by isotopic tracer technics. It should be noted that the words strontium and radiostrontium (Sr-90) have been used without chemical differentiation, as there is none.

Eisenbud[4] has given a relative proportionality of strontium to calcium as: soil 1 to 600, plants 1 to 1,000 and bones 1 to 4,000. Bones of humans nourished on a diet containing an estimated Sr/Ca ratio of 1 to 500 were found to contain 100 parts per million of strontium in an ash containing 40 per cent calcium. These results by Snowden and Stitch[9] are somewhat lower than those given by Turekian and Kulp[10] of 234 ppm, Hodges 220 ppm, and Tipton 120 ppm. These results, however, are reconcilable with normal variations found in humans nourished on the products of soils of divers parts of the world. The variation on human bones was found to be 0.35 to 1.33 per cent strontium to per cent calcium x 10^3.

As a result of the worldwide monitoring program called "Sunshine" some interesting results are available. From this data the Harwell group in the United Kingdom[11] have derived the data in table I. There are relative Sr-90 data of soil and milk available.[12]

TABLE I

STRONTIUM-90 CONTENT

	Maximum	*Minimum*	*Means*
Grass (acid hill soil)	2180	113	370
Grass (normal soil)	85	23	40
Sheep bone (hill grazers)	170	24	57
Sheep bone (lowland grazers)	15.6	7.8	13.7
Milk (Somerset)	5.7	2.9	4.2
Milk (other areas)	10.3	4.3	6.9
Bones (children)	1.3	0.15	0.55
Bones (adults)	0.25	0.06	0.22

A comparison of values was made by Bryant *et al.*[3] in which they gave the relative strontium/calcium ratios in bones and milk normalized to vegetation as 100.

	Vegetation	*Bones (animals)*	*Bones (children)*	*Milk*
US 1953	100	30	8	16
US 1955	100	28	8.5	15
UK 1955	100	40	3.7	9

In the Chicago milk shed the amount of strontium in milk increased proportionally to the amount of strontium in the soil between 1953 and 1955.[13]

The relative levels of strontium expressed as ratios of calicum seem quite constant. At any rate, there is no more strontium per gram of calcium as one goes from soil to plant and less from plant to milk to bone in every instance of observation under natural conditions. A similar discrimination has been observed under experimental conditions.

Comar and Wasserman[14] report a preferential secretion of calcium over strontium in milk by a factor of seven. MacDonald[15] measured the ratio of stable strontium to calcium in the milk and rations of dairy cattle and found the observed ratio to be 0.13 or, as Comar and Wasserman stated, a factor of seven. The agreement between the natural observed ratios and the experimentally determined ratios is exceptionally good.

In order to know accurately the current background radiation of our environment, determine the rate of accretion, and estimate future levels of fallout, the milk, along with the soil, plants and bones of man and animals, are being analyzed. Because of previously described physical properties and the fact the strontium-90 is readily absorbed and concentrated in bone crystal, it has been considered the biologically critical isotope of fission products.

Milk is a practical index of Sr-90 in the biosphere. It is relatively easy to sample, it approaches equilibrium in special environments rather quickly, and has an easily determined calcium composition. The importance of these characteristics will be recounted.

Strontium seems to be a normal, although, as far as known at this time, a nonessential, metabolite. The radioisotopes of strontium, chemically identical to stable strontium, are biologically similar to calcium—metabolized alike; affected by the same variables such as diet, endocrine functions, vitamins and acid-base balance; deposited primarily in bone by growth or ion exchange, and transmitted in relatively large quantities to the developing fetus and the milk.

Preferential retention of calicum rather than strontium seems to occur in animals and man. This preferential metabolic process will henceforth be referred to as discrimination.

The absorption of calcium and strontium from the gut of cattle is rapid and with little or no discrimination, but subject to regulator factors which will be mentioned. In thirty minutes, 63 per cent of an oral dose of calcium may be absorbed. During this same period 14 per cent of the ingested calcium will have found its way to the fetus in utero. It was estimated that 30 per cent of the fetal calcium is derived from the dam's calcium reserve laid down before conception.[16]

Horstman *et al.*[17] fed Sr-90 to sheep as a nitrate and compared the results with those obtained when sheep were allowed to acquire their strontium from plant accretions. They found no difference either in the quantity absorbed or the quantity subsequently secreted in the milk.

True digestibility of calcium in dairy cows may vary greatly. Within a group of animals on the same ration Visek *et al.*[18] found a variance of 17 to 56 per cent. Comparable variability has been reported to have been found in humans.[19]

Calcium ions enter bone within minutes after ingestion and almost immediately after gaining entrance into the body. Within a matter of hours a large portion of the ions are almost irreversibly fixed and after several hours a steady state has been established between blood serum and bone. Having reached a steady state, any change will be governed by isotope dilution and excretory losses.[14]

Urinary excretion of either calcium or strontium in cattle is so small it may be ignored as a means of conservation of levels.[14,16,20] On the other hand, it may be of considerable importance in man.[19] In the case of both man and cattle there is a preferential urinary excretion of strontium over calcium by a factor of 2 to 24 under various conditions.[14]

In animals whose skeletons were labeled by calcium or strontium tracers, an excretion of 1 per cent per day loss may be observed for the first week or so after labeling. However, after several months, less than 0.04 per cent of the body burden was removed daily.[14] Thus, recently deposited elements move freely from skeleton to plasma, whereas later, the comparative mobility of previous depositions is insignificant. Forty-five per cent of the excretion takes place soon after ingestion.

Kleiber and Luick[20] reported a remarkable secretion rate of 43 grams of calcium and 37 grams of phosphorus per day by a dairy cow. All milk serum calcium was inorganic. These authors, as well as Visek *et al.*,[18] point out that the secretion of calcium in milk is a function of the amount of milk secreted. For example, although the high producer mentioned above secreted 43 grams, she did so in 34 kg. of milk. A low producer on the same ration secreted 4.2 grams of calcium per day in 3.3 kg. of milk.

With a dietary intake of 20 grams of calcium a day 1.4 per cent of a daily dose of Ca-45 and 0.2 per cent of Sr-90 was secreted per liter of milk.[14] The level of Sr-90 in milk from an ingested dose was highest on the second post-ingestion day. When Erf and Pecher[21] injected Sr-89 intravenously in cattle, the highest concentration of the isotope, 2 per cent, was found five hours after injection. The observation by Visek *et al.*[18] that the secreted milk provides a noninterchangeable pool of calcium ions is both interesting and pertinent insofar as it provides a means for the Sr/Ca ratio of the milk and the Sr/Ca ratio of the ration to correlate without necessarily reflecting the plasma level at any one particular time.

The results of research on the strontium metabolism of man by Laszlo *et al.*,[19] Harrison *et al.*[22] and Comar *et al.*[23] indicate that between the bone and the diet there may be a discrimination factor of 2 to 4 of calcium over strontium. It is possible that under some conditions the human bone may accept strontium without discrimination.[24]

It has been established that the presence of milk in a diet enhances absorption of both calcium and strontium. Calves 2 to 7 months old have had a mean net calcium digestibility of 84 per cent on milk ration. The corresponding value for the calves on a milk-free ration of hay and grain was 25 per cent. The declination of digestibility can be reversed by the introduction of milk into the ration. A milk ration decreased calcium excretion 4 to 14 fold and strontium 2 to 6 fold.[14] Wasserman, Comar and Nold[25] have demonstrated factors in milk, such as lactose and some amino acids, responsible in part for the action of milk.

The strontium balance, as related to the calcium homeostasis, is therefore maintained by regulators, influencing for the most part the absorption from the gut. Such regulators include the milk factors mentioned, vitamins, phytic acid, faulty fat absorption, oxalic acid, high phosphorus concentrations and other factors enhancing or depressing calcium absorption. The physiologic absorption of calcium, and therefore strontium to a relative degree, presumes the presence of adequate ions and an acid-base balance.

We have, therefore, traced the strontium from its creation into the biosphere and taken a look at some of the controlling factors. Because the strontium content of both milk and bone are controlled by the factors which control calcium metabolism, it is both convenient and logical to express the strontium in relation to calcium and to still maintain a concept of absolute quantity. By determining the amount of radiostrontium in milk, it is now apparent that it is possible to estimate levels of contamination of forage which would have produced that level. Knowing the amount of fissionable material necessary to produce these levels, one may predict future body burdens with a greater degree of accuracy.

Milk has been routinely sampled in the United States since 1954. Monthly analyses are available from six major milk sheds from 1 to 4 years. The strontium average of the United States just prior to October, 1956, was 3.5 $\mu\mu$c/gram Ca. The fluid milk in the Chicago milk shed up to 1955 ranged from 1.47 to 7.7 su. It averaged 1.65 su in 1956. The highest value for the country was obtained from samples taken at Mandan, North Dakota, where a high of 17 su and an average of 8 su was found.[4, 13]

The average strontium contents for milk in the United States and England are about equal; those for Japan are somewhat lower.

Dried milk, containing 18 per cent calcium in the ash, contained 2.7 to 5.7 su. Dried milk samples have the advantage of smoothing out local variations due to animal husbandry methods, importation of feeds, and local variations in strontium-90 deposition.

Cheese from the United States, Europe and Australia was sampled, and up to 1956 the highest content was 11 su. Although the European and United States values were about the same, the Australian values were 10 times less.

This seems to be an appropriate place to interject the comment that there is always considerable lag between the time of sampling and the availability of checked results. This is due to the method of assay, which depends upon radiation decay and, therefore, cannot be accelerated. The methods are fantastic inasmuch as they are capable of determining with accuracy one ten thousandth of a permissible level of Sr-90 which is 100 $\mu\mu$c/per gram of calcium, or billionths of a gram!

Because of the delay in analyses and the even greater delay caused by stratospheric hold-up of previously created strontium, reliable indicators of future levels are of great importance. MacDonald[15] has estimated that by assuming a dietary intake of one gram of calcium per day and a discrimination factor of 0.14, people might ingest 714 su daily throughout their lifetimes. Using standard references, he has calculated that this would amount to a body burden less than the MPC and the total ingested guantity per day would amount to 1,560 disintegrations per minute of radiation. Because of this much lower discrimination factor for humans on milk diets, this may not be applicable across the boards to populations of man in all circumstances.

Milk, long before an atomic detonation, contained an appreciable amount of radioactivity. Eisenbud[4] made the observation that a Geiger-Muller counter inserted into a gallon of milk secreted before 1945 and another secreted since 1955 would not detect a variation in counts. The radiation added since the detonation of the first weapon is small compared to the normal radioactivity in milk.

Lebedinsky[26] reported cows being fed red clover hay and potatoes gave milk with 2,800 counts per minute per liter and the butter from that milk had 6,000 cpm per kilogram. The counts were considered consistent with the potassium content of milk under the conditions of counting. According to Dudley[27] there is about 8.4×10^{-4} μc per gram of potassium, attributable to the 0.0119 per cent K-40 present in natural K. Lebedinsky's counts are, therefore, in line with a K content of 140 mg/100 ml milk and 2.22×10^{6} dpm per μc of radioactive material.

There probably is room for a word about serious emergency situations resulting from acts of war. The situation is not apparent today, in which the hazard to livestock would be other than of secondary importance. If they can exist they would be useful. Sometimes under wartime conditions fallout might be heavy enough to cause an accretion of strontium in excess of the maximum permissible levels in milk. In such cases it might still be possible to process the milk into butter which would reduce the strontium by a factor of 1,000 or into cheese which would reduce it less.

These strontium levels in products are reduced by concentrating the strontium content in the skimmed milk. The chemical removal of strontium is possible, however,[28] and improved methods might be applicable in the processing of dairy products. At present, preferential or selective removal of strontium is not possible and calicum, as well as other minerals, is removed also.

It does seem strange that milk, being so carefully monitored, has been the food most suspect of radiotoxicity. By eliminating milk from the human diet and deriving our dietary calcium from other food sources, it is by no means clear how we could reduce the strontium hazard if one were to exist. As a matter of fact, considering the enhancement of absorption by milk factors, together with the discrimination factors in the production of milk, it is quite possible that the body burden of strontium might not be increased by the elimination of milk if our needs were supplied by other sources of natural dietary calcium.

Dunham[29] has said that "we have reached the state of knowledge on the subject of effects of irradiation which permits me to state unequivocally, that there is no man-made general environmental hazard about which we know so much."

We must, therefore, conclude that, according to the consensus of scientists appearing before the Joint Committee on Atomic Radiation of the 85th Congress, there is not an immediate hazard from Sr-90 in our biosphere. Furthermore, because of the constant monitoring throughout the world, any danger existing in milk from this source would be more readily detected than any other potential hazard. If a problem exists in the dairy industry, it consists of informing the public of these facts.

United States Atomic Energy Commission.

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The Rhythm of Pain of Bowel Obstruction

Illustrated by Pain-Charts

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PICTURES PORTRAY RHYTHM of pain with bowel obstruction better perhaps than words. For instance, six pain-charts here depict pain with small or large bowel obstruction for comparison with these words from Cole: "Characteristically, pain of intestinal obstruction is cramp-like, and comes on in a spasm lasting for a few minutes, and decreasing in intensity or perhaps disappearing entirely. Further, it is well known that if gangrene develops, pain increases and becomes more continuous, so that to consider decompression successful, there should be distinct relief of pain within several hours, otherwise immediate operation may be advisable."

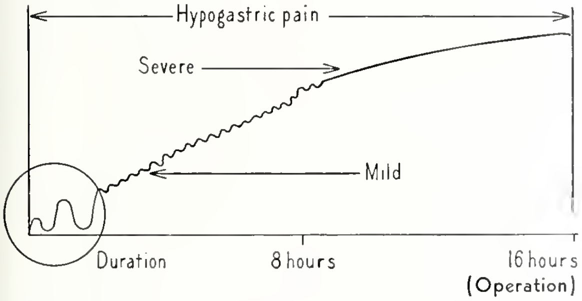
METHOD

The six pain-charts were sketched from patients' descriptions a few days after operation, at a time when the patients were fully relaxed.

COMMENT

Pain-chart I portrays 16 hours of hypogastric pain of a man aged 70 prior to resecting gangrenous ileum strangulated in a right inguinal hernia. Pain, with three minute peaks and five minute intervals of incomplete relief, first was mild, later severe and steady. There never occurred intervals of complete relief, all 16 hours.

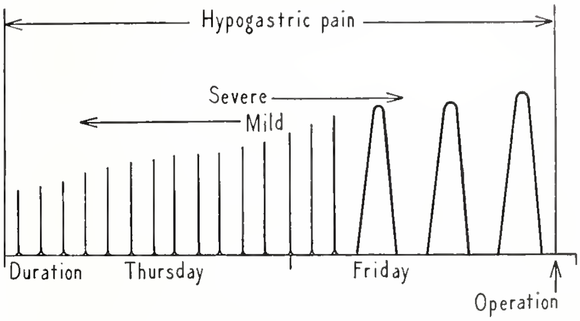
PAIN-CHART I
GANGRENOUS OBSTRUCTION OF ILEUM



Preoperative pain began (magnified) with three minute peaks and three to five minute valleys, increased 16 hours until operation for strangulated inguinal hernia. Male, aged 70.

Pain-chart II depicts two day hypogastric pain of a man of 35 prior to resecting the terminal ileum partially obstructed by polypoid lymphosarcoma.

PAIN-CHART II
PARTIAL OBSTRUCTION OF ILEUM BY
LYMPHOSARCOMATOUS POLYPS

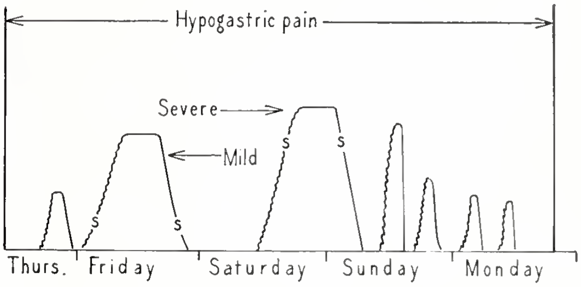


Two days of preöperative pain with one-half to one and one-half minute peaks. Note, Friday, pain-free intervals two to five minutes before intubation, 30 minutes after intubation. Male, aged 35.

At first pain-peaks lasted one half minute, later one and one half minutes. Pain-free intervals recurred always between pain-peaks, intervals which lasted from two to five minutes before intubation, intervals which lasted 30 minutes after intubation the second day.

Pain-chart III shows five day hypogastric pain of a woman of 38, five months pregnant, with partial obstruction of the ileum from adhesions. Each day pain increased and lasted longer, up on 12 hours the fourth day; though between pain-spasm occurred intervals of some hours of complete relief from pain. Operation was scheduled the fourth day, but after intubation, enema and defecation,

PAIN-CHART III
PARTIAL OBSTRUCTION OF ILEUM
BY ADHESIONS



Pain increased four days, Sunday persisting 12 hours, but never longer without some hours of complete relief intervening. S—slept. Female, aged 38.

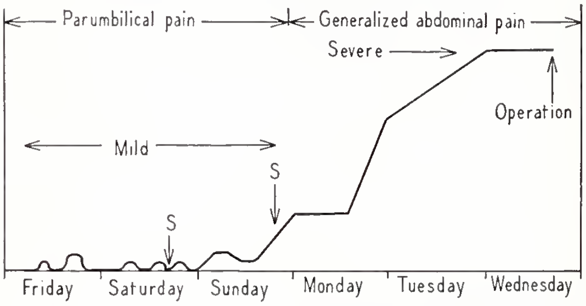
From the Department of Surgery, St. Louis University School of Medicine.

pain again disappeared completely for two hours; operation was withheld; pain by the fifth day disappeared. At term, four months later her obstetrician, Dr. Royston, delivered her by Cesarian section of a viable son, and freed adhesions binding the ileum to the uterus, adhesions which probably had caused her previous obstruction. During 11 years since then, she has suffered no further pain.

Pain-chart IV indicates the five days of parumbilical pain of a 42 year old woman, three months pregnant, prior to resecting four feet of gangrenous ileum with mesenteric venous thrombosis. Onset was mild, with three hour pain-peaks and two hour pain-free intervals; later pain became severe, constant for 36 hours and more diffuse. She aborted the second day after operation and was discharged the tenth day in good health.

PAIN-CHART IV

MESENTERIC THROMBOSIS OF ILEUM

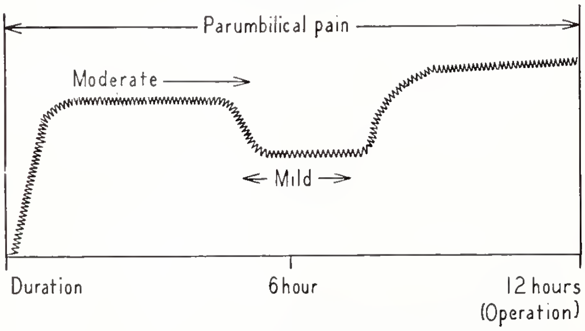


Six days of preoperative pain, at first with three hour peaks and two hour pain-free intervals, pain persisting without remission the last 36 hours until operation. S—slept. Female, aged 42.

Pain-chart V depicts 12 hour hypogastric pain of a man of 31 prior to untwisting volvulus of the midileum and freeing adhesions. Although the sixth hour pain diminished (probably from morphine), nevertheless, pain persisted all 12 hours, with no pain-free intervals.

PAIN-CHART V

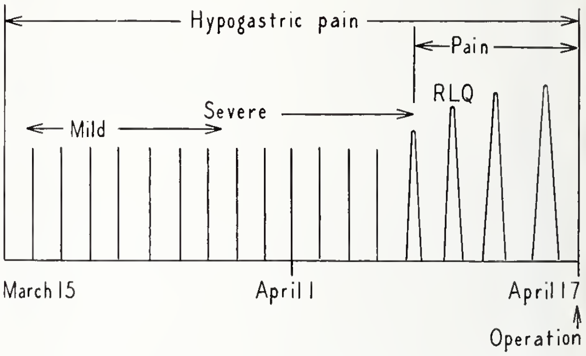
VOLVULUS OF ILEUM, ADHESIONS



Twelve hours of persistent preoperative pain. Note dip in pain sixth hour after hypodermic of morphine. Male, aged 31.

PAIN-CHART VI

PARTIAL OBSTRUCTION OF TRANSVERSE COLON BY CARCINOMA



A month of preoperative pain, 15 second peaks with 10 to 29 minute pain-free intervals, first three weeks. Week before operation peaks lengthened to 10 to 30 minutes, intervals the same. Male, aged 43.

Pain-chart VI shows the month of hypogastric pain of a man of 43 preceding the resection of the transverse colon partly obstructed near the splenic flexure by carcinoma. Pain always was intermittent: all month long between pain-peaks occurred pain-free intervals lasting from 10 to 30 minutes; the pain-peaks lasted only 15 seconds the first three weeks, and lasted up to 30 minutes the last week before operation.

FINAL COMMENT

Appreciation of the rhythm of pain has been valuable in distinguishing small from large bowel obstruction; pain persisting more than 12 hours without pain-free intervals characterizes the small bowel obstruction; pain persisting less than 12 hours with pain-free intervals up to four days characterizes the colon obstruction (table 1). It may prove dangerous to try to distinguish partial from complete small-bowel obstruction; however, such obstruction ordinarily demands early surgery, preferably within 12 to 24 hours after onset of pain.

TABLE 1. TIME FACTORS.

PREOPERATIVE PAIN OF BOWEL OBSTRUCTION

Site and Type of Obstruction	*Pain Persisted After Onset*	*Pain-Free Intervals*	*Usual Time Onset to Operation*
Ileum, complete	6-50 hrs.	None	Under 48 hrs.
Ileum, partial	½ min.-12 hrs.	½ min.-12 hrs.	Under 1 week
Colon, partial	½ min.-12 hrs.	5 min.-4 days	1 week to 1 month

Some pain-charts concerning appendicitis have been published (1946, 1950).

100 N. Euclid Ave.

Keratoacanthoma

Differential Diagnosis From Squamous-Cell Carcinoma of the Skin

NORMAN TOBIAS, M.D., *St. Louis*

SINCE SMITH[1] described multiple self-healing epitheliomas in 1934, numerous reports have appeared in the literature of skin tumors which often disappear spontaneously although they clinically and histologically resemble low grade squamous-cell carcinomas. The subject is of immediate interest because these lesions named keratoacanthoma in this country, molluscum sabaceum in Great Britain, and molluscum pseudocarcinomatosum in Central Europe, appear to be increasing in frequency. Furthermore, if a virus etiology can be proven, it may give the oncologists a clue since these lesions appear to be a cross between a wart and a malignant growth. If the cause is not a virus then, as Flegel[2] points out, there must be a growth-controlling factor present which determines whether the keratoacanthoma will be self-limited or whether malignancy will develop.

Solitary or localized lesions are not uncommon but generalized or multiple lesions may occur. Some investigators regard both types as similar growths but there is a difference in that the multiple forms occur in younger individuals and often run in families.

The solitary type of lesion usually appears on the face, neck, nose or forearms as a small papule, then becomes a smooth nodule or button-like lesion with a central plug. The average size varies from 1 to 1.5 cm. in diameter. Inflammation is absent or minimal. The rapid growth of the nodule over a period of three weeks to three months is noteworthy. No localized lymph node enlargement is present unless the growth has been irritated or the diagnosis is in error.

If untreated, the true keratoacanthoma will spontaneously involute over a period of several months as a result of inflammatory reaction, leaving a depressed white scar.

The etiology is unknown. The virus theory appears to be the most plausible although trauma, aging, inflammatory changes in the walls of the sebaceous glands and contact with oils have been noted in some cases. Attempts have been made to reproduce the lesion experimentally by injection of crude filtrates but so far this has proved to be unsuccessful.

PATHOLOGY

The clinical features may be deceiving so that biopsy is necessary in all cases. The entire lesion should be excised, stained and examined under the low power lens to visualize the architecture as a whole. In some cases the borderline between the diagnosis of keratoacanthoma and stage 1 squamous-cell carcinoma may be confusing. In typical cases, however, the lesion is a circumscribed nodule with a central keratinized plug in a crater surrounded by a shoulder of acanthotic epidermis (pseudoepitheliomatous hypertrophy). The basal cell membrane is intact but if the epidermal nests penetrate the dermis, they are distinctly outlined and appear to be finger-like projections from the primary growth. The origin of the growth is still controversial. Dupont[3] believes that the initial site is in the infundibulum of the hair follicle.

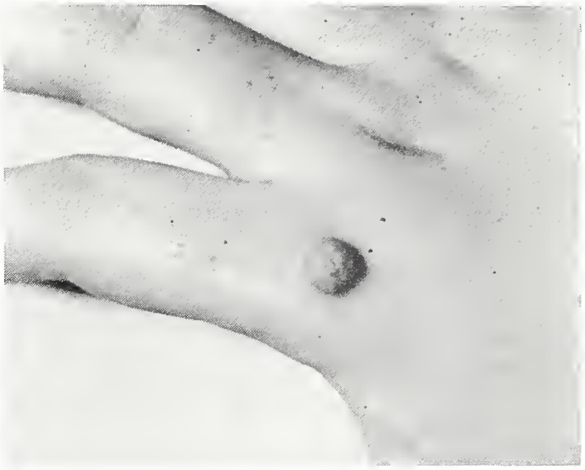


Fig. 1. Typical lesion, treated with fulgeration. No recurrence after one year.

DIAGNOSIS

The final diagnosis should rest with the pathologist for medico-legal reasons but any rapidly growing non-inflammatory nodule on a normal skin with a central plug and depressed center in the 20 to 70 age group should make one suspicious

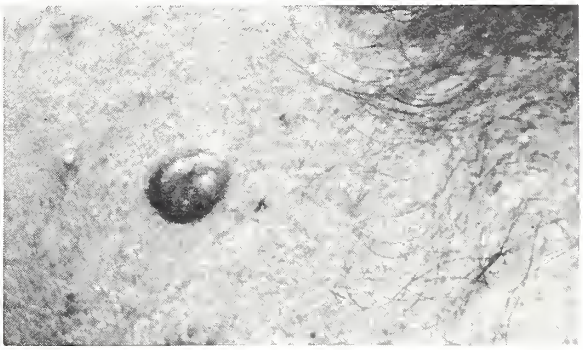


Fig. 2. Nodular type treated by excision.

of keratoacanthoma. Ereaux[4] sums up the diagnostic dilemna with these words: "We have yet to discover a histological yardstick for easy measurement of these entities which will enable us to differentiate with certainty malignant and benign processes." The same situation confronts the dermatologist in some cases of pigmented nevus versus malignant melanoma.

Differential diagnosis is presented by the following table:

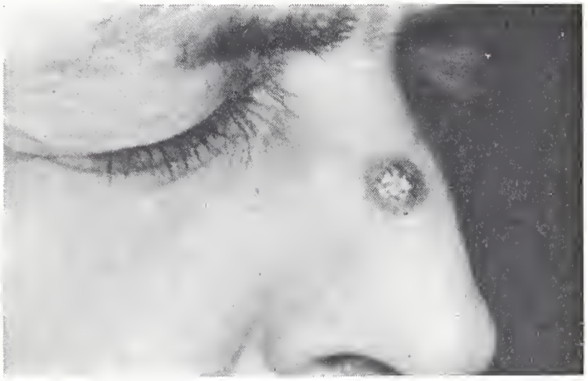


Fig. 3. Keratoacanthoma (molluscum sebaccum) with pigmented border and central crusting. (Photograph courtesy Dr. Ereaux.)

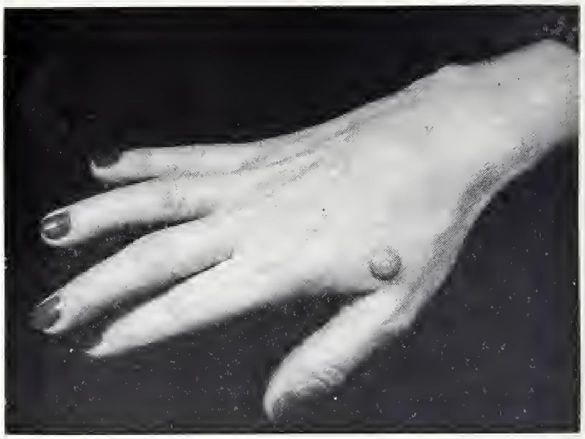


Fig. 4. Typical location showing center plug in a woman of 54. Complete involution following 2,400 roentgen x-ray therapy. Patient also has chronic lichen planus.

TABLE 1
DIFFERENTIAL DIAGNOSIS

	Keratoacanthoma	*Squamous-Cell Carcinoma (Skin)*
Age Group	20-70	40-70
Type Skin	Normal	Senile or previous chronic ulcer
Sex	About equal	Males—4:1
Incidence	Common	Rare
Distribution	Neck. Forearms, Face	Exposed areas
Spontaneous Healing	Yes	Never
Duration	Short—3 wks.-3 mos.	Long
Metastasis	No	Yes
Evolution	Rapid	Slow
Recurrence after healing	No	Yes, if not adequately treated
Scar formation	Slight	Moderate to extreme
Inflammation	None	Moderate
Mucous Membrane Involvement	Never	Frequent
Basal-cell membrane	Intact	Penetrated

Keratoacanthoma may be confused clinically by the inexperienced observer with other conditions including the common wart, sweat gland basal cell carcinoma and giant molluscum contagiosum, but the biopsy will demonstrate a typical pathologic picture in these lesions.

TREATMENT

While the typical keratoacanthoma will disappear spontaneously after several months, without treatment, the average patient is not likely to be content with mere observation. Since the pathologic criteria are not too dependable, the lesion should be treated as a squamous-cell carcinoma. These methods are suitable: (1) excision *en toto*, (2) excision and cauterization of the base, (3) x-ray radiation (1500-2000 r. in divided doses), or (4) curettement and light fulgeration.

Recurrence at the site means that the lesion was a squamous-cell carcinoma from the beginning. Solid carbon dioxide and podophyllin ointment have also been used but are not recommended.

634 N. Grand Ave.

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The Patient With Complicated Duodenal Ulcer

A Follow-Up Study

RICHARD F. HUCK, M.D., *St. Louis*

THE PROGNOSIS for the alleviation of symptoms of a peptic ulcer in the duodenum is excellent for the initial episode, but the course of the disease is punctuated by remissions and exacerbations.[1] In following patients with this condition over a period of 2 to 30 years frequently the only objective evidence of disease is a "scarred duodenal bulb," demonstrated radiologically. Characteristically, these patients are sporadically symptomatic but in general do not have, and probably deleteriously so, constant supervision. The percent varies with each series but the proportion of permanent cure for a given group of active duodenal ulcer patients is usually about 50 per cent.[2]

Contrasted with the patients who have long periods of remission are those who have developed one and significantly usually more than one of the major complications of duodenal ulcer: hemorrhage, perforation and/or obstruction.

Following patients as will be indicated, it became obvious that individuals with one or more major ulcer complications presented greater problems in management—medical as well as surgical. It is, therefore, worth while to report experiences in the management of patients with complicated duodenal ulcer disease.

MATERIAL

The medical records of 275 male patients with the service connected diagnosis of duodenal ulcer have been reviewed and 26 or 9 per cent of them have, through the course of years, manifested one or more of the complications listed. Table 1 presents a summary of the clinical course of each patient studied who had one or more complications secondary to a duodenal ulcer.

It is well to emphasize that it is not at all unusual for one patient to develop more than one of the major complications of duodenal ulcer and, further, that in my experience at least, subtotal gastric resection has not removed a significant number of these persons from the role of gastrointestinal cripples.

Twelve patients in the series had subtotal gastrectomy. In analyzing the results of subtotal gastrectomy for duodenal ulcer it is important to understand what operation is under discussion because the terms radical gastrectomy, partial gastrectomy and subtotal gastrectomy have no exact anatomic significance. In most of the patients studied radiologically after surgery, approximately two thirds of the respective patients' stomachs had been removed. Failure to obtain improvement following operation may indicate that a more extensive procedure should have been accomplished. However, a more radical resection would not be thought to lessen the type of symptoms noted in the patients followed.

It has been recorded by others[3] in observing 433 patients who had a subtotal gastrectomy for duodenal ulcer, that a significant number of the individuals followed six months to 12 years improved symptomatically; that is, their postcibal symptoms thought to be due to surgery lessened. Probably our series is too small for comparison but improvements have been noted in only one of our 12 patients following subtotal gastrectomy. Every patient was followed for at least one year or longer.

All of the patients in our series whose records were reviewed had received medical treatment for two to 14 years; in none was the management consistent and the need to continue between meal antacid therapy was not stressed, particularly when the individual was not symptomatic.

DISCUSSION

It is certain that the patients followed throughout the years had not, in all probability, had the most detailed medical management of their ulcer problem for months at a time.

It is true that several factors in these patients have not been adequately evaluated. Possibly some other occult basic pathology is underlying and perpetuating the symptoms, such an an adenoma of the pancreas of hyperparathyroidism. Possibly the fact that pension amounts are related to symptoms (in these cases to a minor degree) may make postoperative symptoms useful. Against this it is probably significant that all, during the last three months, have had less complaints since frequent feedings were employed and hourly antacid therapy instituted.

Certainly the analysis of the case records of these unhappy individuals indicates the need to be particularly strict in the medical management and follow-up of patients with duodenal ulcer. Particularly if any individual had at least one major complication, he is prone to develop another one or experience repetition of the initial difficulty. In these patients prolonged adherence to a convalescent ulcer diet with antacids every two hours between meals should be emphasized (see table 1).

From the Veterans Administration Regional Office, Outpatient Clinic, and the Department of Medicine, Washington University School of Medicine, St. Louis.

TABLE 1

CLINICAL SUMMARY COMPLICATED DUODENAL ULCER PATIENTS STUDIED

Pt.	*Age*	*Onset*	*Complications*	*Medical Rx*	*Surgical Rx*	*Post Surgery Sequelae*	*Post Surgery Rx*	*Follow-Up Post Surgery*	*Present Status*
R	44	1943	Recurrent melena Forme Fruste Perforation	Antacids sporadically when symptomatic	Subtotal Resection 1953	Weakness, nausea, fullness, some vomiting	High protein, high fat diet antacids, small feedings	4 years	Can work if strict regimen is followed
F	39	1945	Hemorrhage 1948 Perforation 1949	Antacids and antispasmodics	Perf. repair Subtotal resection 1951	As above	Diet as above antacids between meals	6 years	Works; needs constant trt. & supervision
L	42	1944	Perforation 1945	As above	Perf. repair 1945 Subtotal resection 1955	Epigastric burning, pain, other symptoms as above	As above	2 years	As above
L	42	1941	Hematemesis 1944	As above	Subtotal resection 1954	Marked weakness, nausea, fullness	As above	3 years	As above
Mc	34	1942	Perforation 1947	As above	Subtotal resection 1952	Marginal ulcer 1955	As above	5 years	As above
M	43	1944	Hematemesis 1944 Perforation 1956 Obstruction 1956	As above	Perf. repair 1956 Subtotal resection 1956	Minimal symptoms	Frequent feeding	1 year	Present post-surgery status great improvement
C	46	1945	Perforation 1947, melena, recurrent	As above	Perf. repair 1947 Subtotal resection 1956	Marginal ulcer, melena	Convalescent ulcer diet, antacids, antispasmodics	1 year	Requires diet, medication & constant supervision
W	35	1942	Perforation 1944, melena, recurrent	As above	Perf. repair Vagotomy 1944 Resection 1956	Severe weakness, nausea, fullness, some vomiting	As above	1 year	As above
R	46	1940	Recurring pain, recurring melena	Antacids and antispasmodics when symptomatic	Subtotal resection 1943	Severe weakness, nausea, fullness, some vomiting	High protein, high fat diet, antacids	7 years	As above
R	57	1918	Recurring melena	As above	Subtotal resection 1948	As above	As above	7 years	As above
L	42	1942	Perforation	As above	Subtotal resection 1952	As above	As above	5 years	As above
B	36	1946	Perforation 1952 Intractable symptoms recur, melena	As above	Perf. Repair 1952 Subtotal resection 1955	As above	As above	2 years	As above

O	47	1943	Hematemesis and melena 1952, severe pain 1953	Antacids, anti-spasmodics, diet when symptomatic	None			Followed 5 years, requires constant between meal treatment, frequent supervision	
W	37	1944	Melena 3 or 4 times since perforation 1944	As above	Perforation repair 1944	None	Treatment of ulcer	7 years	As above
B	45	1948	Multiple bleeding episodes, Perforation 1954	As above	Repair Perforation 1954	None	Treatment of ulcer	4 years	As above
W	39	1942	Recurring melena Perforation 1949	As above	Repair Perforation 1949	None	Treatment of ulcer	5 years	As above
M	39	1944	Perforation 1946	Antacids, anti-spasmodics, diet when symptomatic	Repair Perforation 1946	None	Treatment of ulcer	7 years	As above
B	48	1945	Perforation 1945 Repeatedly symptomatic	As above	Repair Perforation 1945	None	Treatment of ulcer	4 years	As above
W	43	1930	Disch. from Army 1943 due to bleeding duodenal ulcer	As above	Gastroenterostomy 1936	None	Treatment of ulcer	13 years	As above
B	60	1918	Melena and hematemesis 1956 and 1957	As above since 1918	Gastroenterostomy 1921	None	Treatment of ulcer	9 years	Cannot work. Requires hourly feedings
F	29	1948	Hematemesis and melena 1954	As above since 1954	None			2 years	Constant between meal feedings, antacids necessary
W	35	1943	Perforation 1956	As above	Repair Perforation 1956	None	Treatment of ulcer	9 years	Needs constant diet & antacid therapy. Has penetrating ulcer
K	42	1944	Obstruction 1957	As above	None			5 years	Strict management necessary
Z	41	1944	Recurring melena	Antacids, anti-spasmodics, diet when symptomatic	None			2 years	As above
B	25	1952	Hospitalized twice for severe pain, melena with anemia on two occasions	Antacids, anti-spasmodics, diet when symptomatic	None			2 years	As above
C	40	1943	Hemorrhage 1943 Hospitalized twice for treatment of ulcer	As above	Exploratory 1957 for pre-pyloric ulcer. This not found. Scarred duodenal bulb noted		Treatment of ulcer	5 years	Needs constant diet & between meal antacids to be comfortable

It is worth while to stress the fact that of the nine subjects experiencing two major complications of duodenal ulcer, seven submitted to subtotal gastric resection and, of these seven, six still required postoperatively close supervision in addition to frequent feedings and antacids. All have been followed for at least one year after resection (see table 2).

The same results were noted with those patients demonstrating only one of the major complications of duodenal ulcer (see table 2).

TABLE 2

Patients Resected	*Patients with one complication and Resected*	*Patients with two complications and Resected*	*Those requiring medical treatment after surgery*	*Number greatly improved after surgery*
12	5	7	11	1

Patients treated medically also were not cured; the remaining 14 patients with complications but treated medically throughout the years required constant supervision and medication, many of the patients being followed for three or more years.

Of great importance, as emphasized by the patients observed, subtotal gastric resection for duodenal ulcer does not obviate the necessity for further diet restriction, antacids and anti-spasmodic medication in a significant number of individuals who had hemorrhage and/or previous perforation.

In control of the symptoms of weakness, vomiting, bloating and distention in the series of patients who had subtotal gastrectomy, frequent feedings with a diet high in fats and protein have been useful. This has been the experience of others.[5]

Obviously, the present treatment of duodenal ulcer is inadequate, but inadequacy is frequently compounded by failure of patient and/or physician to recognize the need for long-term diet therapy and antacid medication. Symptoms often yield promptly to treatment, but patient and physician must realize that treatment must be prolonged whether or not symptoms occur.

From this study it is felt that subtotal gastrectomy for duodenal ulcer should be instituted primarily for massive hemorrhage or obstruction if the latter primarily is due to scar tissue and not acute inflammation and spasm. Patients who failed to follow a reasonable medical management may not adhere to the dietary restriction indicated following subtotal gastrectory but it is felt that this continued management is necessary in most of these individuals who have had surgery for the major complications of a duodenal ulcer. The fact that the patient has had a subtotal gastrectomy does not reduce the importance and necessity of prolonged medical management.

The postgastrectomy results in patients sustaining one or more major complications of peptic ulcer are even less satisfactory than those of others[6] who found abdominal symptoms occurred in 13 of 20 patients operated upon for severe duodenal ulcer; in 18 of the 41 operated upon for bleeding duodenal ulcer and in 8 of 12 operated upon for stomal ulcer. Dr. Jordan's series included ulcer recurrences and other complications.

In our patients anemia, weight loss and diarrhea were not significant problems but rather postprandial distress was marked. Further it is notable that a marginal ulcer was demonstrated radiologically in two of the 12 patients undergoing subtotal gastrectomy.

Of the 14 patients treated medically, none has experienced a recurrent major complication during the last seven months while on a more strict course of management. Certainly, this may not be significant; future follow-up may decide this point.

SUMMARY

1. A follow-up study of 26 patients with complicated ulcer is presented.

2. In 14 of the 26 patients there was a single complication; which may or may not have been recurrent, such as melena or hematemesis. In the remaining 12 patients two or more complications were manifest.

3. Twelve of the 26 patients had subtotal gastrectomies performed. Symptoms were completely relieved in only one of the 12 patients. Two of the patients developed a marginal ulcer postoperatively.

4. Of the 14 patients treated medically, all required constant supervision and medication regularly to keep ulcer symptoms under control.

5. The implications of these findings are discussed; namely, that in the many patients sustaining one of the major complications of a duodenal ulcer, medical management cannot be abondoned after subtotal gastric resection.

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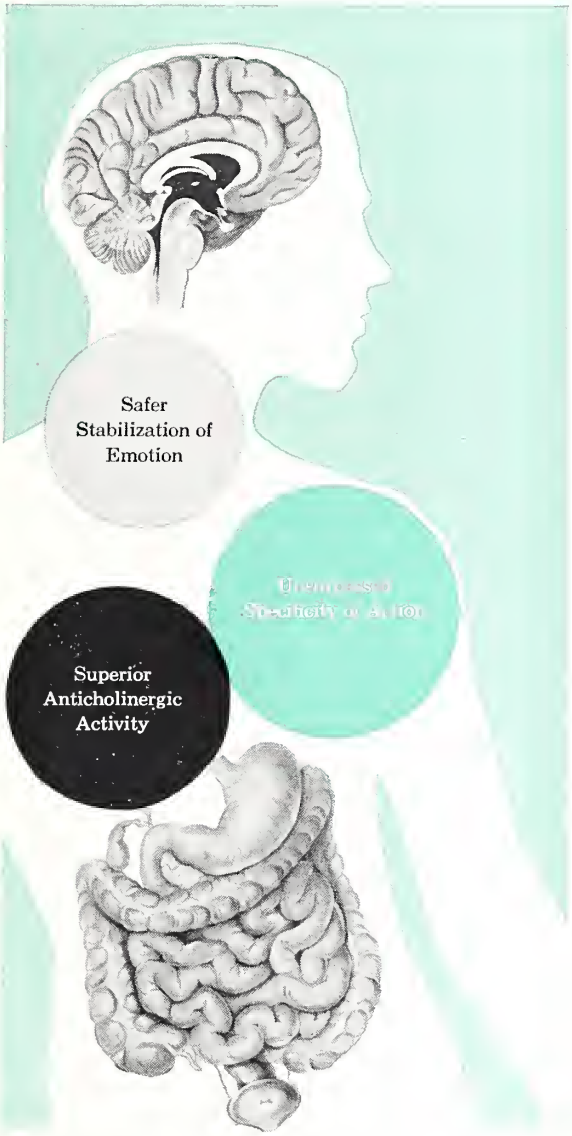

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Clinical Pathologic Conference

History

A NEWBORN white male infant was admitted to the Cardinal Glennon Hospital at 4 days of age with jaundice. He was the fifth born of healthy parents; three siblings are healthy, the fourth died with a meningocele.

The pregnancy was uneventful until the last month when the mother was given hormonal treatment for pains. One day prior to delivery the membranes ruptured spontaneously and the mother reported the passage of green mucoid material with the amniotic fluid.

The baby was born by breech presentation but no difficulties were encountered. The birth weight was 7 pounds, 8 ounces, and there was no jaundice, cyanosis or respiratory distress. He took feedings normally and appeared well until the age of 48 hours when jaundice was first noticed. The pigmentation deepened rapidly.

Examination (at 4 days)—A deeply jaundiced but otherwise normal infant showed temperature 99.8 F., pulse 160 per minute, respiration 40 per minute. The heart was normal and the lungs were clear. The abdomen showed no enlargement of liver and spleen. The umbilicus was healthy. The neurologic examination was normal, the infant sucked well and showed a good Moro reflex.

Investigation—Hb. was 13.0 g/100 ml.; white blood count 11,800/cu. mm. with 41 per cent neutrophils, 55 per cent lymphocytes, 4 per cent monocytes and 9 nucleated red cells per 100 white cells.

Bilirubin showed a total 29.8 mg. per 100 ml. (direct reacting pigment 0.8 mg. per 100 ml.)

Urine was yellow, pH 5.5, specific gravity 1017, protein trace, sugar negative, acetone negative, bile negative.

Blood groups were mother Group A Rh D positive, father Group A Rh D positive, infant Group A Rh D positive.

Coombs' test was direct negative, indirect negative.

Progress—An exchange transfusion was started with 500 cc. of Group A Rh D negative blood which was compatible with the serum of the infant and the mother. After 20 cc. of blood had been administered, the child became dyspneic and circumoral cyanosis was noted. The heart sounds ceased, and intubation and cardiac massage were performed. The cardiac rhythm was reestablished for a short time but he did not recover.

DIFFERENTIAL DIAGNOSIS

DR. JAMES KING: This is a 4 day old infant with jaundice that developed at the age of 48 hours. There are several problems that we have to deal with; one of the features of the history was that the mother received hormonal treatment for pains during the last month. Dr. Mier, I wonder if you could help us out with that?

DR. THOMAS MIER: I know of no well established hormonal therapy which will relieve the contractions that commonly occur during the last weeks of pregnancy. The hormone used was probably progesterone which would not, as far as I know, adversely affect the fetus. The androgenic hormones, however, may if given in the early months of pregnancy have a profound effect on the female fetus.

DR. KING: There is no relationship between androgens and jaundice is there?

DR. MIER: None that I know of.

DR. ROLAND TRISKA: Does progesterone have any effect on the adrenal gland?

DR. MIER: No, the adrenal cortex has a reciprocal relationship with the anterior pituitary, but there is no evidence that progesterone influences that relationship.

DR. ROGER SHARP: Progesterone and related substances are excreted in the urine as pregnandiol, which is conjugated in the liver with glucuronic acid. I do not know how much hormone this woman received, but I wonder if some of the progesterone may have been presented to the fetal liver and that there may have been competition between the hormone on the one hand and bilirubin on the other for the glucuronic acid enzyme system?

DR. JAMES KING: We will return to the problem of jaundice, but now Dr. Donahoe, would you comment on the significance of the premature rupture of the membranes?

DR. JAMES DONAHOE: Edith Potter states in her book[1] that inflammation of the amnion is most often associated with early rupture of membranes or a long and complicated labor. There is no doubt in my mind that a long labor predisposes to infection of the amniotic fluid, but I wonder whether a primary infection of the amnion may not lead to premature rupture of the membranes?

DR. MIER: Premature rupture of the membranes is harmful both to the mother and to the fetus. It predisposes to infection in the mother, who may be afebrile after delivery, and it certainly increases the incidence of pneumonitis in the fetus. If the membranes have been ruptured for more than 24

From the Departments of Pediatrics and Pathology, Saint Louis University School of Medicine and the Cardinal Glennon Memorial Hospital for Children.

hours, the patient should be given prophylactic antibiotics. There are no good reasons for the claim that premature rupture of the membranes is always due to infection of the amnion. Intermittent uterine contractions occur throughout pregnancy and they become strong in the last few weeks; any weak spot in the membrane will rupture like a balloon.

DR. KING: Could you comment on the significance of the presentation, Dr. Mier?

DR. MIER: I think we must admit that birth is a hazardous process and the risk with breech presentation is usually considered to be double that with vertex presentation. In premature infants, and many breeches are premature, the mortality is said to be as high as 20 per cent. This baby seems to have had an easy delivery but all infants born by breech presentation are susceptible to abdominal trauma. As the vulva impinges on the fetal abdomen it squeezes the blood in the vena cava and large veins upward so that some of the weak abdominal veins may rupture. Subcapsular and parenchymatous hemorrhage in the liver may occur and this may be associated with icterus. The breech delivery may therefore have been an important factor in the demise of this baby.

DR. TRISKA: Do you think that the adrenal glands may have been damaged during the course of the delivery?

DR. MIER: Yes, and I believe that the mechanism of adrenal hemorrhage is similar to that which I have already described.

DR. PETER DANIS: I have seen several infants with subcapsular hemorrhage of the liver and some showed adrenal hemorrhage. These babies, however, died on the first day of life before the onset of recognizable jaundice.

DR. KING: The clinical summary mentions that a sibling of the patient died with a meningocele. Dr. Peden, could this bear any significant relationship to the problem?

DR. VIRGINIA PEDEN: I do not think it is of any significance. Meningoceles are usually not associated with other congenital anomalies, neither are they associated with any congenital disease which may produce jaundice. The meningocele in this family probably is coincidental.

DR. KING: There is no relationship between meningocele and congenital atresia of the bile ducts?

DR. PEDEN: No relationship whatsoever.

DR. KING: This brings us to the problem of jaundice. We have discussed the importance of sepsis, birth trauma and abdominal hemorrhage. Dr. Sharp, could you give us some information about the more recent views concerning the pathogenesis and etiology of jaundice in the newborn infant?

DR. SHARP: About 75 years ago Erhlich devised the diazo reaction for the determination of bilirubin in urine. Bilirubin produced a pink color when mixed with an alcoholic solution of the diazo reagent. Just before World War I, however, Van den Bergh used the diazo reaction of Erhlich to determine bilirubin levels in serum. When using this technic, by mistake, he omitted to add the methyl alcohol and found that in many he still obtained a faint pink color which on addition of alcohol became much stronger and deeper. He further found that in obstructive jaundice there were large amounts of the direct reacting pigment which reacted in the absence of alcohol. The terms direct reacting and indirect reacting pigment are now used freely to distinguish the obstructive from the hemolytic types of jaundice. Until recently, the most commonly accepted theory was that indirect reacting bilirubin was, in some way, bound to a protein in the serum, and that in the liver this protein was split from the bilirubin to produce the direct reacting pigment which is excreted in the bile. Schmid,[2] Brown,[3] and others have now shown, however, that this is not true. The indirect reacting bilirubin is an unconjugated form of bilirubin which in the presence of hepatic beta glucuronidase, is conjugated with glucuronic acid and converted to the soluble direct reacting form of bilirubin which is excreted in the bile. The whole picture is not as yet complete and there is some evidence which suggests that there may be more than two forms of bilirubin. There are also good reasons to believe that the glucuronidase enzyme system is poorly developed in the liver of the newborn infant and in premature infants the conjugating mechanism may be sadly deficient. If the immature liver is presented with a load of indirect bilirubin which it is unable to conjugate there will be an accumulation of indirect reacting pigment in the serum. This is probably the mechanism of the jaundice of prematurity. In conditions such as hemolytic disease of the newborn infant, or sepsis, the load of bilirubin may be so greatly in excess of the conjugating ability of the liver that the accumulation of indirect reacting bilirubin may be rapid.

DR. KING: Dr. Sharp has mentioned hemolytic disease of the newborn infant. The mother, father and infant were of the same ABO and Rh Groups and it seems unlikely that the ABO and Rh factors were involved in the etiology of the jaundice. The negative direct and indirect Coombs' tests make even a rarer blood grouping incompatibility unlikely. There was, however, a mild anemia. In the normal infant of 4 days the hemogloblin is usually well above 13.6 grams. The presence of nucleated red cells in the peripheral blood indicated increased erythropoiesis. This brings a consideration of the mode of death; he died whilst receiving an exchange transfusion. An incompatible transfusion is unlikely, since the blood given was compatible with the serum of the infant and the mother. Dr. Triska, what are the dangers of an exchange transfusion?

DR. TRISKA: There are many dangers associated with exchange transfusion. If the transfusion is given too rapidly, or too large an amount is given, cardiac failure may be precipitated. If the exchange is performed with citrated blood, the citrate will combine with the ionized calcium in the blood of the infant and lead to cardiac arrest. Other electrolyte changes may also occur, and it is important to use fresh blood because stored blood has a high content of potassium. The temperature of the blood is also of importance. Rapid exchange transfusion with cold blood will produce a state of shock in the infant. Exchanges should therefore be done slowly with blood warmed to room temperature. Another feature which is frequently forgotten is that the infant may have been fed. Gastric aspiration should be performed before starting the procedure.

Dr. King: This introduces the question of the criteria for doing an exchange transfusion? If we can rule out a hemolytic process, then why was this baby subjected to an exchange transfusion? There have been numerous reports of the occurrence of kernicterus in babies without hemolytic disease. Any infant below the age of 5 days who develops a high level of indirect reacting pigment probably should be given the benefit of an exchange transfusion. This is a suggestion, and obviously not a definite and irrevocable rule of therapy. It is important to remember, however, that conditions other than hemolytic disease may produce kernicterus, particularly in small premature infants.

Dr. Korn: In view of the fact that this baby was 4 days old, and that the neurologic examination was normal, do you think that exchange transfusion was justified in this case?

Dr. King: Although the baby was 4 days old the indirect reacting pigment was high and the blood smear suggested continued blood destruction, so that a further increase in bilirubin may have been expected.

Dr. Becker: Gellis has suggested that infants who are jaundiced be given prophylactic antibiotics because of the danger of sepsis in icteric babies. Blood culture should always be performed in these cases.

Dr. King: I agree, but the taking of a blood culture is of no immediate help in deciding whether or not to perform an exchange transfusion. I think the time has come for people to express their opinions before we have the pathologic diagnosis.

Dr. Danis: This full term baby with presumably a mature liver born by breech delivery could well have had intraperitoneal bleeding from the liver or elsewhere. The jaundice and the peripheral blood picture could certainly be explained on the basis of hemorrhage. In addition, we have the problem of sudden death which suggests the possibility of adrenal failure.

Dr. Schlesinger: Has the question of passive anaphylaxis been considered in this case; could this be a case of sudden death due to anaphylaxis following the transfusion of blood?

Dr. King: This is, of course, a possibility but it is not one which is usually considered in infants of this age.

Dr. Korn: I think the evidence is in favor of some internal hemorrhage, possibly from the liver, but I would also wonder about a subdural hemorrhage.

Dr. Becker: I still favor sepsis.

Dr. Mier: I favor hemorrhage probably peritoneal.

PATHOLOGIC DISCUSSION

Dr. Drummond Bowden: This was a deeply jaundiced infant weighing 7 pounds, 8 ounces. There was no external evidence of sepsis; the umbilicus was healthy. There was no evidence of bile duct obstruction, and the intestines contained normal bile-stained material. The infant was 4 days old when he died, and there had been marked elevation of the indirect reacting bilirubin, so it was not surprising to find bile staining of the basal nuclei of the brain. There was, you remember, no clinical evidence of neurologic involvement.

Dr. Danis: Were there any microscopic changes compatible with the diagnosis of kernicterus?

Dr. Bowden: I am not sure that I can recognize any changes in the cells of the basal nuclei in kernicterus which are distinct from changes which may be seen in anoxia or other conditions. The adrenals were huge, each weighed about 12 grams. There was just a thin shell of necrotic cortex and in the center about 10 ml. of fluid blood.

MICROSCOPIC EXAMINATION

The adrenals showed a thin rim of degenerate cells, and apart from these cells the whole of the adrenal cortex was destroyed. The center of the gland was a mass of blood clot. The liver appeared to be fully mature and there was no evidence of liver cell necrosis or of giant cell formation. The other organs appeared normal; there was no evidence of sepsis or hemorrhage, and no evidence of cytomegalic inclusion disease or toxoplasmosis.

The findings at autopsy certainly provide an adequate cause of death, but there are several questions which remain unanswered—first of all the etiology of the adrenal hemorrhage. We know that adrenal hemorrhage is not uncommon in the newborn period and a number of reasons have been advanced. The adrenal is an endocrine gland, and is, therefore, a vascular sinusoidal organ. Hemorrhage is particularly likely to occur in the hypercellular, vascular adrenal of the newborn and, especially, as Dr. Mier has indicated, in association with breech delivery. The second point which we have to decide is whether this hemorrhage was present at birth? If it was, how did the infant survive for four days? The history suggests that during the first 48 hours of life he showed no signs of acute adrenal insufficiency. Could the hemorrhage have been merely a terminal phenomenon? The fourth day is about the time when we might expect to see the manifestations of hemorrhagic disease of the newborn infant, but in the absence of hemorrhage elsewhere we cannot postulate a hemorrhagic diathesis. Perhaps the truth lies between these two extremes; the falling hemoglobin and the nucleated red cells in the peripheral blood would usually be taken to suggest a hemolytic process, but in this case they probably indicated hemorrhage. Perhaps that hemorrhage was progressive during the first few days of life. As far as the jaundice is concerned a functionally mature liver would certainly have no difficulty in excreting the usual load of bilirubin, but as a result of the hemorrhage the load of bilirubin presented to the liver might well have been considerably in excess of normal.

DR. KING: Anemia due to adrenal hemorrhage has been reported at least once.[4] It is also not uncommon for these infants to do well clinically for from 48 to 72 hours. Gardner[5] reports an infant who apparently suffered birth trauma and did well until the age of 15 months. At that time he developed signs of hypoadrenalism and showed massive bilateral adrenal calcification.

DR. BOWDEN: In summary, we have an infant born by breech delivery who developed massive bilateral adrenal hemorrhage. Elevation of the serum bilirubin presumably due to absorption from the hemorrhagic adrenals, was so marked that a replacement blood transfusion was undertaken. All of the clinical findings may be explained as a result of the adrenal hemorrhage.

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A.M.A. TO ALERT PUBLIC AGAINST FOOD FADS

The American Medical Association has announced plans for a concerted program to alert the public to the dangers of substituting "food fads" for sound nutrition.

Dr. F. J. L. Blasingame, executive vice president of the A.M.A., pointed out that millions of Americans are influenced by nutritional products of questionable merit.

"We feel it is our duty to warn against abandoning the traditional 'three square meals a day' and the principles of sound nutrition for the pills and schemes of food faddists," he said.

The U. S. Food and Drug Administration and the National Better Business Bureau are cooperating with the A.M.A. in this program.

F.D.A. Commissioner George P. Larrick, Washington, D. C., in commenting on the problem said, "Our food supply is unsurpassed in volume, variety and nutritional value; our medical care is unexcelled. Yet food faddists and some promoters circulate false ideas about food and nutrition which can be dangerous to health."

The A.M.A.'s educational program will be conducted via television, motion pictures, public meetings, newspapers, and magazines. Four educational aids, for use in the campaign, were shown at the A.M.A.'s annual Public Relations Institute Aug. 27-28 in Chicago.

One is a 28-minute motion picture produced in Hollywood for use on television and for showings to club, church, and school groups. Titled "The Medicine Man," the 16 mm. black-and-white film exposes two types of nutritional "quacks"—the health food lecturer and the door-to-door food supplement salesman who makes unwarranted claims for his product.

A second aid in the campaign is a 20-foot exhibit designed for display at state and county fairs under the auspices of local medical societies. In addition to telling the facts about food supplements and health food lecturers, it will also expose weight reduction schemes and other nutritional "flim-flams."

To underscore the need for an educational campaign against food faddism, Dr. Charles S. Davidson, Boston, Mass., chairman of the American Medical Association's Council on Foods and Nutrition, said:

"Some Americans not only waste their money on food fads, but in many cases actually endanger their health. Federal agents have uncovered peddlers who claim their nutritional products will cure almost any disease.

"The greatest danger comes when sick people abandon accepted therapy to experiment with food fads or when they attempt to treat serious symptoms with nutritional products of unknown reliability instead of going to their family doctors for a checkup."

Special Article

The Clinician as a Sabbatician

E. GREY DIMOND, M.D., *Kansas City, Kansas*

On July 1, 1956, I embarked upon a new experience, namely, a sabbatical leave. I have been asked repeatedly about this experience. The questions usually concern the areas of "How did you do it?" and "Why did you do it?" The third question usually not asked but truly the fundamental one is, "Now that it is over, what did it do for you?" The answers to these questions are the purpose of this paper.

HOW

By tradition in academic life it is recognized that a teacher, in order to maintain a level of freshness and quality, must be allowed to back away from his daily duties and refurbish, or recharge himself and his store of knowledge. This privilege is widely used in undergraduate schools, but the physician-teacher, under the excuse of patient demands, seldom allows himself to participate in this earned privilege. It is ironical that the academician, in this more particular of professions, becomes trapped in a circle of increasing creative barrenness.

For the professor in the liberal arts college, the decision is somewhat easier. The reasons for this easier mobility of the non-physicians are perhaps related to the anomalous fact that the physician has a greater income and, therefore, greater overhead and, therefore, cannot afford the sabbatical opportunity. Although this seems a strange premise, it perhaps plays the larger role in keeping the medical school clinical staff at home on the job.

The decision to shut down one's home, practice, and local career and embark upon a "wanderjahr" takes considerable thought and fortitude.

At first examination, the proposal seems impossible. Children, pets, furniture, automobiles, taxes and insurance programs—all the equipment and impedimenta of living need resolution. After one has privately analyzed the problems and their solutions, one must eventually convince his wife of the wisdom of such an adventure. Wives are not, by nature, sympathetic to major changes. The wife of a physician in particular, often has vivid memories of the intern, resident and army days. The final six years of stability which have made the sabbatical possible have not changed her impression. (Although the wife may finally become enthusiastic, the relatives, in-laws, will never understand the nature of what one proposed.)

FINANCIAL SUPPORT

The first order is to decide how one will rearrange his finances. Many universities will continue the pay at one half the base income. This is usually done with the specific understanding that one will return to his present position for at least one and perhaps two years at the completion of the leave. This salary would be sufficient for a stationary life abroad if it were not for several items. First, one's insurance program must be maintained; second, travel for two (or more) from one's city to an overseas area and return will easily use so much of this base income that there is little left even for a life of music, sand, cheese and wine.

The university usually will permit one to obtain additional outside income. Some institutions stipulate that the combined income must not be greater than the normal university pay.

Areas for support which should be investigated are the Fulbright Awards, both the research scholar and lecturer levels. In addition, there are definite liaison programs between certain foreign and American medical schools. For example, good opportunities have been available in Indonesia and Pakistan through contact with the Universities of California and Indiana.

The China Medical Board and other foundations should be contacted. The State Department and the Public Health Service may have suggestions. One will find that one contact will lead to another and that the opportunities and need for American physician-teachers in overseas areas is immense.

A word of advice concerning taxes is necessary. After one has established his sources of income in terms of the contract, it is wise to visit the regional office of Internal Revenue and get an exact appraisal of the tax responsibility. Although one may receive his overseas salary in dinars, one must pay the American tax in dollars.

The potential income from writing should not be overlooked. One's overseas assignment may have definite publisher appeal.

If one elects to leave children in this country, the wife, activating previous interests, may be able to benefit from a travel grant also.

WHY

In my initial paragraph I indicated the basic reason why I believe the medical school faculty

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Professor and Chairman, Department of Medicine, University of Kansas Medical Center, Kansas City, Kansas.

From an address presented at the Hixon Hour, University of Kansas Medical Center, February 20, 1957.

should utilize its sabbatical opportunity. Actually, I feel considerably stronger than this, namely, I believe the staff should be required to back away from the press of duty and by recharging themselves, constantly revitalize the school. Although the absence may temporarily deprive the school of the physical effort given by the individual, the administration can count this period as a superb investment. The exciting new instructor, dynamic with his new bag of tricks, all too soon becomes the reactionary professor. The quadruple load of teaching, administration, practice and research simply makes it difficult for the enmeshed individual to think with originality and freshness. A medical school partially overcomes this by adding new junior staff. However, budget limitations eventually fix the size of the staff, and the school begins its period of two or three decades of static hierarchy. Staff senility and sterility can be successfully treated by periodic dosage with a mandatory study and travel leave of absence.

For the individual, sabbatical leaves offer, at first glance, opportunity for travel, new ideas and study. These are inherent, of course, and alone would justify the sabbatical leave. For the individual, however, I believe the sabbitical offers one value unique.

THE VALUE UNIQUE

For each, the route toward his present position has been a sequence of events in which chance and circumstance have played a surprisingly large role. True, one did prepare with premedical courses, choose a medical school, choose an internship, choose a residency and choose academic medicine. At first glance, our place in life would seem to be the result of increasingly selective choosing and what we are today should be the mature, happy result of a lifetime of preparation.

It is true that for physicians there have been many choices, and success has often been the result of hard work and just reward. However, it would be the rare man who would not admit to a large function of chance, luck, circumstance, and line of least resistance. In other words, the position we occupy today may well be the result of our own choosing—but only because fortune made it the only logical choice—or the least painful one.

For the man who does not ask himself questions and who does not seek to be more than he is, then this final, unique value of the sabbatical leave will not help him. In fact, he will not recognize it.

I am referring to the unusual privilege of being able to back away from one's present commitments, to literally enjoy the essence of a retreat, to stop doing what one is doing and ask one's self: "Is this where I meant to be? Is my future course one of choice or chance?"

In the years preceding my leave I found myself asking the recurring question "What now?" I found myself nearing 40, my life more than one half done, many of my youthful ambitions realized and many of my dreams made dim by the daily demands, in many ways a success and in many ways a fragmented victim of that success. By fragmented I mean that I was, because of the strange nature of a chairmanship: a teacher, an administrator, an educator, a doctor, an internist, a cardiologist, an investigator, a politician, an author, a fund raiser, a crying boy and a whipping post.

Taken as a whole, I was a chairman. Examined by pieces, I was a little of each and not all of any. Instead of having become a master of many parts, I was highly suspicious that I was mastered by the parts.

I, therefore, found myself in need of answers: Where do we go from here? Do I want to stay in parts (and perhaps that is the definition of a chairman: a miscellaneous collection of fragmented talents, useful as a chairman but useless in the application of any specific fragment). And, if not, what do we jettison, what do we keep? What are we seeking? Do we already have it and are simply unable to recognize it? Are we thinking, living, creating or are we running, whirling and making a noise? Is this happiness? Have ambition and competition become the stimulus instead of understanding and feeling?

To get these answers one needs to look, not only at himself, but look at himself in proportion to his family, his associates, his peers, his profession, his society, his culture and his world. This is a large order but such would seem to be the objective of all of us: to understand ourselves and and in so doing, achieve an understanding of the spheres of increasing size which surround us—family, society, culture, world. This desire to understand ourselves is expressed in many ways: We refer to a man's maturity, to a man's happiness, to a man's completeness. In medicine, we categorize a man as "stable" or well adjusted. Well adjusted to what? The fact that a man maintains a respectable veneer and meets his daily duty may not indicate a state of "well adjustedness" but a spiritual catatonia.

I approached this rather large order with a physician's stereotyped method, namely, I "read up on it." To read outside the field of medicine when one is busy is to read in snatches. The deep satisfaction of picking up a good non-medical book and thoroughly digesting it is a pleasure which is hard for the physician to satisfy. I had collected, over the last several years, a varied set of books which I had either "fragmented" or simply promised myself to "read later."

These books were not necessarily literary greats, but they each had a message that I wanted and did not have. Most of them pertained to our western civilization which, for an American, was under-

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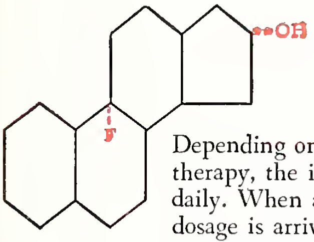

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standable, but some were serious explanations of other religions, cultures, and governments.

With this working library I set out to do several things: First was to cross Europe from west to east, from Hamburg to Istanbul, and think about and see Teutonic, Slavic and Semitic people and to look at evidences of the Roman Empire, to watch the unfolding of customs and dress and language. Number two was to cover Europe, from the boot of Catholic Italy on north to the Protestant countries, to watch and think and read about the Latins and all the races north on to the Nordic. Number three was to settle down and live in a European country as a professor and compare this with what I knew to be our life here. Number four was to circle the globe, from Christian countries to Moslem, to Hindu, to Buddhist, to Shintoist; to meet people in as many lands and under as many forms of government and religion as possible. Number five was to just sit and think.

The end results of such an adventure are absolutely impossible to put into words: What does one accomplish and how permanent these accomplishments are factors one cannot appraise; a certain inner peace completely unmeasurable, for this I can vouch; a clear concept of objectives and an almost grim determination to achieve them—an awareness of the unimportance of things which seem important.

When I first returned home it was difficult not to be forced into delivering a series of travelogs. I tried in two initial efforts to convey the idea that the colored slides and movies were simply material samples of an unmeasurable experience. I shortly realized that the true significance of what one can gain from a sabbatical leave has an entirely personal value and the sabbatician, clinician or otherwise, can give back to his university and his colleagues new ideas and stimulus—but the greatest reward was in the free, uncomplicated time to look at one's self.

. . . and able to sit quietly
with our hands draped loosely
and shaken out over the chair's end,
resting first . . . seeing the changes of light,
hearing the distant bells,
different in the leafed and unleafed
seasons . . .
we must decide what are the things we want
and how we are going to pursue them.[1]

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[1] "Osborn on Leisure" by Robert Osborn, copyright E. R. Squibb and Sons, 1956.

Philosophical Barrier Keeps Polio and Arthritis Groups Apart

Basic differences in fund-raising techniques and organizational setups apparently were responsible for the last minute failure of the anticipated merger of the National Foundation for Infantile Paralysis (N.F.I.P.) and the Arthritis and Rheumatism Foundation.

Just four days before the old N.F.I.P. was scheduled to make the announcement, the Arthritis Foundation voted not to go along. Missouri Medicine, as well as many other publications, were caught with their merger stories already in print by the last minute switch. (See August issue, page 875.)

Main differences between the two fund-raising groups: The Arthritis Foundation allows its local chapters wide autonomy, lets them raise funds independently or through United Funds-type drives. It also lets them allocate funds for research in neighborhood medical centers.

MAINTAINS NATIONAL APPROACH

The polio organization, on the other hand, forbid its chapters to join in any concerted fund drive. It also directed all fund allocation for research from the national level.

Another major policy difference that figured in the rejection of the idea by the Arthritis board was mentioned by Floyd B. Odum, national chairman. He said his group gives scientists—not laymen—the main voice on its governing boards.

Odum, an arthritis victim himself, said that in the merger discussion the Arthritis Foundation had not received specific enough assurances that "our work in arthritis would be progressed and not retarded by a merger of the two foundations."

"Had it received such assurances," he said, "I believe our medical, scientific and lay leadership would have welcomed an amalgamation in the interest of science and medicine."

SOUGHT A YEAR'S DELAY

The Arthritis Foundation also asked the N.F.I.P. to stay out of the arthritis field for at least a year, as it kicked over the merger.

This the N.F.I.P. refused to do, replying, "Individual diseases are not the personal property of individual organizations."

As it broadened its scope of operation, the N.F.I.P. also shortened its name to simply the National Foundation. Initially research will be in five areas: Polio, virus research, disorders of the nervous system, arthritis and birth defects.

Basil O'Connor, National Foundation president, indicated that no attempt would be made to dupli-

(Continued on page 1038)

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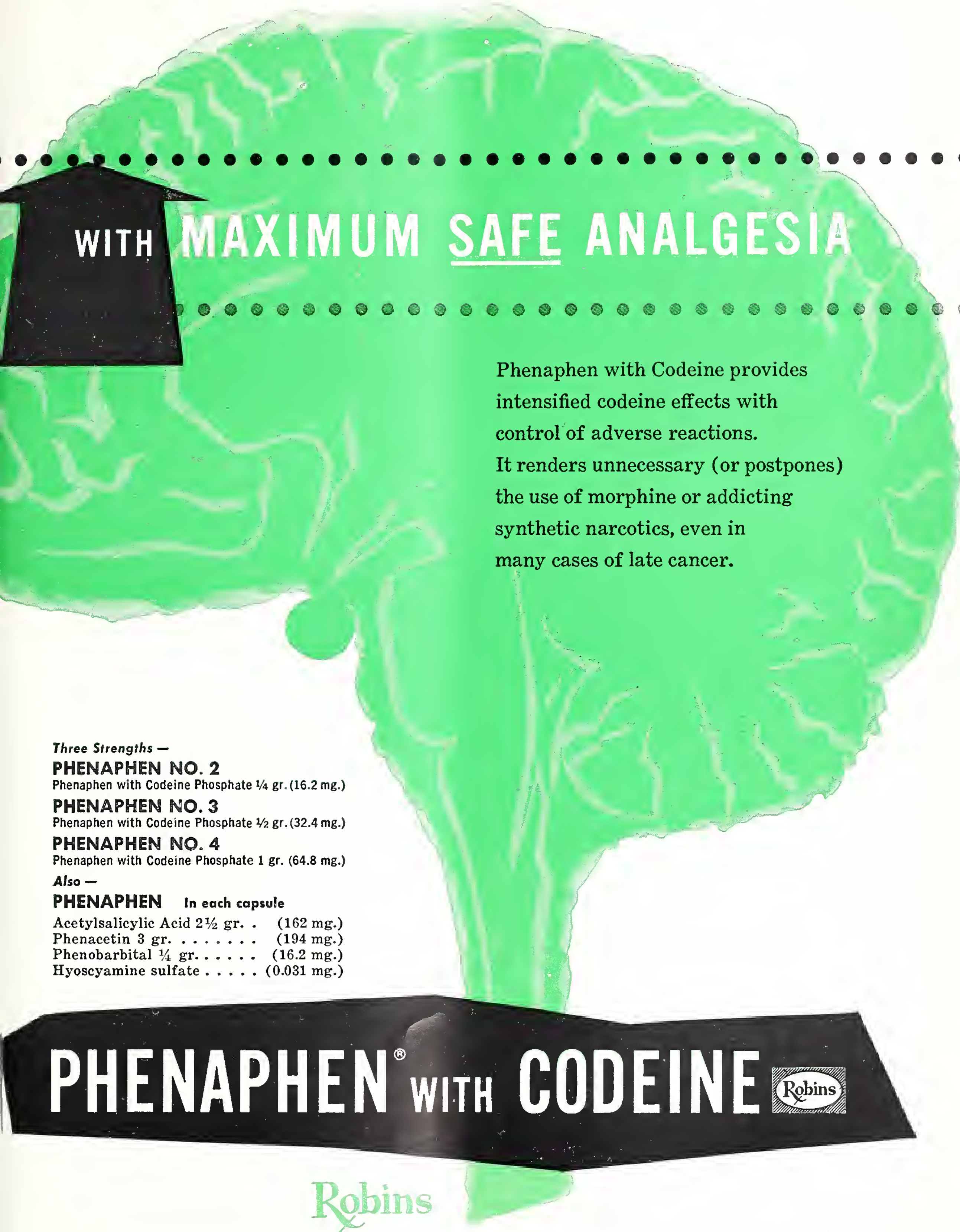

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President's Page

Medicare regulations apparently are in for a drastic overhaul. While it is too early to predict just what the final outcome is going to be, one thing stands out.

Organized medicine evidently lost its battle to preserve the military dependents' right of free choice of physician and hospital!

October 1 tentatively has been set by the Defense Department for the nationwide cutback in the program. Actually Missouri is more fortunate than most states because we renegotiate our contract this month, with its effective date October 1. Thus, Missouri physicians may have just one changeover to digest. The new material, naturally, will be sent to you as soon as it is available. Meanwhile, the program continues as it is.

As I already have commented, medicine appears to have lost its fight to save free choice of doctors for the wives and children of our servicemen and the other uniformed personnel of Uncle Sam.

This, I don't completely understand. After a long legislative hazzle and much work on our part, Congress finally approved 70.2 million dollars—just what the Defense Department had asked for this fiscal year. However, department spokesmen now tell us that major cutbacks still are needed.

Either they didn't ask for enough money to start with, or their actions are purely capricious!

The first restriction to be imposed will be on the dependents living with their sponsors. These dependents (largely wives and children) will be required to first seek medical care at the military base. If the commanding officer determines proper care isn't available, he will issue a certificate authorizing civilian care.

The second restriction affects ALL dependents. As outlined at a recent meeting held in Washington by the Defense Department, it would eliminate a host of medical care services ordinarily rendered on an outpatient basis. (See Washington roundup, page 944, for more details.)

Defense Department statistics show that about 57 per cent of the dependents living in Missouri are not living with their sponsors. This means the remaining 43 per cent will have to receive the base commanders' permission before they can come to us for care under the Medicare program, except in cases of obvious emergencies. This is a far cry from the way the program has been administered so far.

However, as I already have said, the program continues just as it is until October 1. So do not do anything different until you hear from us.

EDITORIALS

Cancer in the News

A one-month survey of the newspaper stories on cancer provides a good clue as to why so many people (and your patients) might tend to become confused with the work being done in the field.

The stories cover the waterfront, ranging from pessimistic to rather hopeful. One headline even had something for the politically-minded, commenting that the Russians have a "Calm View on Cancer."

The first story reported on a new suggested treatment of smothering the cancer cells. The theory advanced being that cancer cells needed more oxygen than normal body cells. It was an account of a talk delivered by an American physician to the 7th International Cancer Congress meeting in London. The reporter was Alton Blakeslee, science writer for the Associated Press.

Another story, also from London, related that British scientists reportedly have found a curious and apparently dangerous electricity in cancer.

The scientists said that healthy cells stick together and do not go wandering off. The cancer cells, on the other hand, seem to develop strong negative electric charges. This, the scientists feel, could make them repel other cells, so they move about freely to spread and start cancer in other parts of the body.

A Norwegian scientist reported that he had found a peculiar pattern of thyroid cancer. The number of cases increased geographically going north, with the peak on the Artic coast. The difference in number was thought to be connected with diet.

Smog was cited as the main culprit of lung cancer, according to a Soviet scientist. However, he felt it virtually could be eliminated by the proper burning of fuels in cities.

Another Soviet cancer specialist stated that the possible causal relationship between lung cancer and smoking causes no alarm in the Soviet Union. Russian cigarettes contain "special stuff against the cancer," he explained. It was his story that carried the news head explaining that the Russians have "A Calm View on Cancer."

Cancer of the lung was rare in Russian women, he added. He did comment that perhaps it was because they rarely smoked.

Preventing painful cancer of the bladder by a drug taken orally was a new treatment reported to the International Cancer Congress. Reporter Blakeslee said the drug is aimed at blocking a chemical reaction which produces a cancer-causing element in the urine.

Another bladder treatment reported calls for the inflation of a rubber tube that has been inserted into the bladder. Through the tube a pellet of radioactive cobalt is inserted and its x-rays seek out and destroy cancerous cells. The so-called balloon treatment was reported to produce cures in about half of selected cases. Cure means freedom from the disease for at least five years.

The United States Public Health Service reported during the month that there is a probability that one in every four females and one in every five males born in 1950 and living in the United States will develop cancer. The service further said the probability of dying of cancer was one in eight for males and one in seven for females.

Cancer of the digestive system was scored as the greatest killer, accounting for nearly 40 per cent of all male deaths and 35 per cent of those in women. Cancer has been the second greatest cause of death in the United States since 1937. In 1954 there were 146 cancer deaths per 100,000 population. That was second only to the 348 deaths per 100,000 from heart disease.

The study added that most observers feel that there has been a true increase in the cancer death rate since 1900, though factors such as better reporting was credited with being responsible in part for the higher number of cases being reported in proportion to the population.

The PHS also announced the awarding of nearly 1-million dollars in grants for research. The money went to two pharmaceutical firms and five research organizations for producing possible anti-

1959 ANNUAL SESSION

April 5, 6, 7, 8, Kansas City

The Committee on Scientific and Postgraduate Work invites members to submit titles and abstracts of papers they might present at the 1959 Annual Session. The Committee will select those that can be used appropriately in the program.

cancer agents. Included were laboratory studies on promising agents. The grants brought the PHS's contracts for cancer chemotherapy work to approximately 10 million dollars.

Conwell Carlson, reporter for the Kansas City *Star,* also reported extensively on the research work being done at the University of Kansas Medical School. Dr. Robert E. Stowell who heads the work went to Kansas University in 1948 from Washington University.

Dr. Stowell, president-elect of the International Academy of Pathology, is described by Carlson as the "unobstrusive but stubborn man of the laboratory." Dr. Stowell's talk before the International Cancer Congress in London dealt with better methods of training scientists in cytology and histo-chemistry. As Carlson said:

"Obviously, Stowell thinks that this bread-and-butter teaching is going to be needed for the long haul against cancer and other cell-involved ills such as blood vessel, arthritic, muscular and nerve diseases, including mental disorders."

The final story of the survey period concerned Dr. Jonas E. Salk of Pittsburgh who confirmed the fact that he had been conducting experiments with cancer.

In the story, which received a big play in the press, Dr. Salk emphatically said:

"But we have no treatment for cancer."

He added that his studies were strictly of an exploratory nature.

As Carlson commented in his article on the research being conducted at K. U., "As more details of cell life are learned, more problems appear. The horizon broadens."

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

Missouri Academy of General Practice, 10th Annual Assembly, Chase Hotel, St. Louis, October 18-19, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—fourth Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—March, May, October and December.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets third Friday of each month.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—third Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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Musings of the Field Secretary

The St. Louis County Medical Society held its annual spring banquet on Wednesday evening, May 28. This is always a signal affair, and this particular session continued that reputation. The choice steak dinner was preceded by an enjoyable cocktail hour at which all had opportunities to renew acquaintances and make new ones.

Dr. Drescher reads scroll presented to Congressman Curtis.

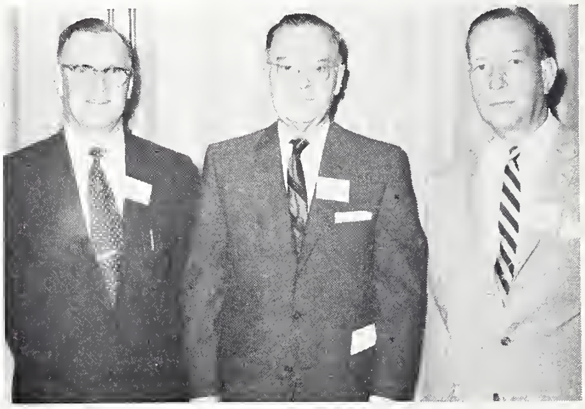
The feature speaker for the evening was Congressman Thomas B. Curtis, Webster Groves, who discussed legislation now pending before Congress which is of special concern to the medical profession. Following the formal talk, he gave a good account of himself in answering a number of questions from the audience. At the conclusion of Congressman Curtis's part on the program, he was presented a Scroll of Commendation by Emmett Drescher, M.D., president of the Society. This scroll was presented to Mr. Curtis for his fine record of service in Congress to the people of the United States, particularly to those residing in the Second Congressional District of Missouri.

Congressman Curtis was the dinner speaker.

The evening festivities terminated with dancing for all of those so inclined. Some 115 people were present to enjoy this special occasion.

More than 100 physicians from Missouri, Kansas and Arkansas attended the one day Clinical Symposium at Springfield, on Sunday, June 15. This outstanding session was sponsored by the Greene County Medical Society, the Southwest Missouri Chapter of the Missouri Academy of General Practice and the Lederle Laboratories. It was held at the Kentwood Arms Hotel beginning at 10:00 a.m. and continued throughout the day, winding up with a cocktail hour in the evening.

The morning scientific program was moderated by M. L. Gentry, M.D., Springfield, president of the Southwest Missouri Chapter of the MAGP.



Dr. Gentry, president of the Southwest MAGP, Dr. Young, and Dr. Elkins, president, Greene County Medical Society.

The luncheon session was presided over by Ronald F. Elkins, M.D., Springfield, president of the Greene County Medical Society, at which time the doctors and their wives were privileged to hear an outstanding talk by John G. Young, M.D., clinical professor of pediatrics at the Southwestern Medical School, University of Texas, Dallas. Dr. Young spoke on "Behavior Problems in Children." From the applause and comments from those present, this talk was truly a highlight of the day's program.

The afternoon session was moderated by Doyle C. McCraw, M.D., Bolivar, vice-president of the Southwest Missouri Chapter of the MAGP.

A special program for the wives of the doctors attending the session was arranged. It included enter-

Dr. McCraw presided at a panel session.

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tainment at the luncheon session, a tour of the city and participation in the reception following the scientific program.

The day's scientific presentations were acceptable for six hours of Category I Postgraduate Study Credit for members of the MAGP.

The seven speakers on the day's full program were: Bram Rose, M.D., Montreal, Quebec, Canada; John J. Will, M.D., Cincinnati; James B. Donaldson, M.D., Philadelphia; John G. Young, M.D., Dallas; Vernon Knight, M.D., Nashville; E. C. Hamblen, M.D., Durham, North Carolina; and George S. Phalen, M.D., Cleveland.

The session included a coffee break.

The arrangements and details for this entire meeting were handled jointly by Kenneth Knabb, M.D., Springfield, secretary of the Southwest Missouri Chapter of MAGP, and the executive office of the Greene County Medical Society.

Two hundred fifty people attended "A Conference on the Handicapped in Missouri" held at the Statler Hotel in St. Louis on June 19, 20 and 21. This conference was sponsored jointly by the Missouri Health Council and the Nemours Foundation of Delaware. It was the eleventh conference on the handicapped which has been sponsored by the Nemours Foundation.

The objectives of the conference were: (1) to discuss and evaluate present services, (2) to find and define gaps in present services, (3) to find and define duplications in present services, (4) to recommend elimination of duplication and overlapping services, (5) to recommend improvement in present services, (6) to recommend additions and enlargement of present services, (7) to recommend new services, (8) to recommend plans looking towards better services.

In addition to a number of short talks by outstanding people working with the handicapped, the conference included special workshop sessions on the following subjects: "Medical Diagnosis and Treatment" led by D. Elliot O'Reilly, M.D., St. Louis, president, Missouri Society for Crippled Children and Adults and Chairman of the Physical Medicine and Rehabilitation Committee of the MSMA; "Mental Hygiene" led by Milton E. Kirkpatrick, M.D., Kansas City, director, Psychiatric Receiving Center, Kansas City; "Education and Training" led by L. G. Townsend, Ph.D., Columbia, Dean of School of Education, University of Missouri; "Social Services" led by Homer C. Bishop, Ph.D., St. Louis, George Warren Brown School of Social Work, Washington University; "Rehabilitation" led by Mrs. Vivian Shepherd, Kansas City, president, National Rehabilitation Association, director, Rehabilitation Institute, Kansas City; "The Aged" led by H. M. Hardwicke, M.D., Acting Director, Missouri Division of Health, Jefferson City.

Those in attendance were privileged to select the workshop in which they wished to participate.

At the final session on Saturday morning, Roscoe L. Pullen, M.D., Dean of the School of Medicine, University of Missouri, gave the concluding summary of the conference using the title "We Are Here—Where Are We Going?"

During the month of June, two regional school health workshops were held in Missouri, one at the State College in Springfield and the other at the State College in Kirksville. The two day conference in Springfield dealt with "Health Appraisal of School Children in the Space Age," with the conference in Kirksville titled "Health—Our Atomic 'Balm.'" Donald A. Dukelow, M.D., Consultant on Health and Fitness with the Bureau of Health Education of the American Medical Association, made two appearances at the conference in Springfield. He participated first as moderator of the panel discussion on "The Team Approach, Through Child Health Appraisal Programs," and then spoke at the conference banquet on "Health Appraisal of Youth Fitness." The Bureau of Health Education of the AMA has been instrumental in the success of school health workshops which have been held in Missouri during the last six years. The workshop at the State College in Kirksville centered its primary activities around group discussion sessions having to do with health of the school age child. In school health workshops of this nature there is need and much opportunity for physician participation.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY FALL CONFERENCE

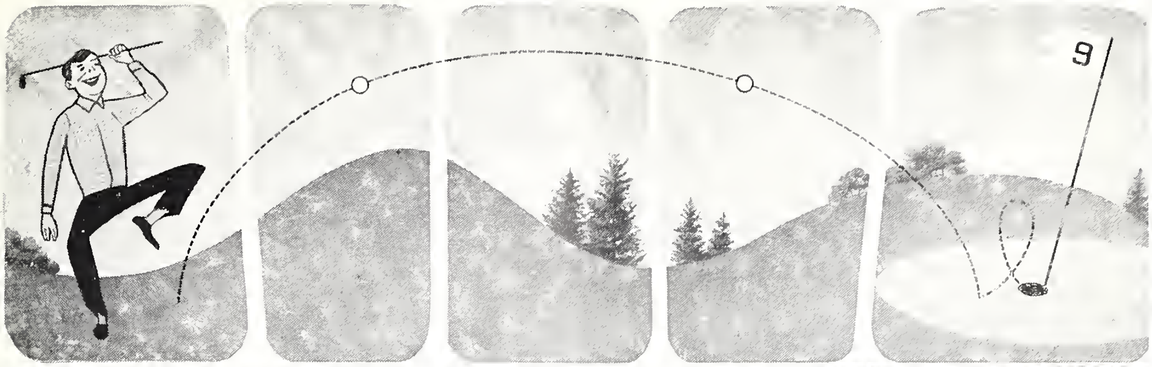
A premiere closed circuit telecast will be presented to the physicians attending the 1958 Fall Clinical Conference of the Kansas City Southwest Clinical Society, September 22 to 25, in the Municipal Auditorium, Kansas City.

Captain Norman Lee Barr, Director of Aviation Medicine Research for the Navy's Bureau of Medicine and Surgery, will bring his electronic equipment to Kansas City to be demonstrated for the first time at a medical meeting.

EKG, heart sounds, pulse rate, respiratory rate will be transmitted from patients at the Bethesda Naval Hospital, via radio waves, to the color television studio in Kansas City where it will be picked up and projected to the Auditorium. This same technic will be used in transmitting physiologic data from a pilot flying a jet plane over Washington, D. C. This television program will give the physicians in attendance a glimpse into the future when, through the medium of electronics, the facilities of the best diagnostic centers in the country will be available in every doctor's office.

In addition, fifteen distinguished guest speakers (see advertisement, page 1040) will be featured in lectures, panel discussions, round table luncheon discussions, and postgraduate breakfast seminars. The daily postgraduate breakfast seminars and the specialized luncheon discussions on September 23 will be by preregistration only and early reservations are advised.

An outstanding array of scientific and technical exhibits will complete this postgraduate medical program. All physicians who are members of their county medical societies are invited to attend.



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News

Ruth Steinkamp, M.D., St. Louis, has been appointed organizational consultant for the Nutritional Anemias Conference which will be held in October in Geneva, Switzerland. The Conference will be held by the World Health Organization.

Eugene T. Dmytryk, M.D., Webster Groves, has been elected to membership in the New York Academy of Sciences.

Lawrence E. Wood, M.D., has been elected president of the Missouri Tuberculosis Association. Dr. Wood also was elected a director of the National Tuberculosis Association.

James P. Murphy, M.D., St. Louis, was elected president of the Medical Alumni Association of St. Louis University at a meeting held in San Francisco during the annual convention of the American Medical Association.

Appointment of section chairmen in the Professional Division of the St. Louis United Fund campaign include cochairmen of the medical section, **Arthur W. Neilson, M.D.**, president of the St. Louis Medical Society, and **Robert C. Kingsland, M.D.**, president of the St. Louis County Medical Society.

Keith Wilson, M.D., St. Louis, was elected president of the Washington University Medical Alumni Association. Other officers elected were: **Richard W. Yore, M.D.**, president-elect; **Frank R. Bradley, M.D.**, vice-president, and **James W. Owen, Jr., M.D.**, secretary-treasurer.

An exhibit on the subject of "Histoplasmosis" won a certificate of merit for the Missouri State Sanatorium which exhibited at the American Medical Association in San Francisco. Notification of the award was received by **Charles A. Brasher, M.D.**, Mount Vernon. Others cited were **Henry C. Sweaney, M.D.**, Mount Vernon, **David F. Gorelick, M.D.**, and **Fred C. Coller, M.D.**, Springfield.

James H. Ready, M.D., St. Louis, has been appointed vice chairman of the medical section of the American Life Convention.

Thomas A. Dooley, M.D., St. Louis, will be featured in a new KMOX Radio public affairs program, "Operation Medico," with tape-recorded reports direct from his jungle hospital in Laos, Asia.

"There is much more to life than length—there is width and depth and fullness of living," **J. R. Amos, M.D.**, city-county health director of Springfield, said when he addressed the Senior Citizens Council of Springfield July 25.

The Missouri Heart, state publication for the Missouri Heart Association, Inc., of Columbia, has announced the naming of **Elmer Edward Glenn, M.D.**, Springfield, as the new state president for the Missouri Heart Association, for the ensuing year of 1958-59.

NEW MEMBERS

Dexton, John W., M.D., 659 Fairview, Webster Groves 19. St Louis County Medical Society.

Dickler, Donald J., M.D., 216 S. Kingshighway Blvd., St. Louis 10. St. Louis County Medical Society.

Durnell, Monaford D., M.D., 18 E. 3rd Street, Lee's Summit. Jackson County Medical Society.

Fitzpatrick, William J., M.D., 1325 S. Grand Ave., St. Louis 4. St. Louis Medical Society.

Franklin, John E., M.D., 3817 Cook Ave., St. Louis 13. St. Louis Medical Society.

Frederick, Raymond O., M.,D., 7442 Wellington Way, St. Louis. St. Louis Medical Society.

Gomez, Cesar A., Jr., M.D., 453 N. Taylor Ave., St. Louis 8. St. Louis Medical Society.

Kendig, John H., M.D., 4375 Forest Park, St. Louis 8. St. Louis Medical Society.

King, Richard H., M.D., 108 S. 3rd, Clinton. Henry County Medical Society.

Kinsella, Maria S., M.D., 415 Beaumont Bldg., St. Louis. St. Louis Medical Society.

Kinsella, Peter W., M.D., 415 Beaumont Bldg., St. Louis. St. Louis Medical Society.

Lamb, F. Patrick, M.D., 6426 Evergreen, St. Louis 21. St. Louis Medical Society.

Ley, Albert P., M.D., 640 S. Kingshighway Blvd., St. Louis 10. St. Louis Medical Society.

McGannon, Paul T., M.D., 920 W. 47th St., Kansas City 12. Jackson County Medical Society.

Nista, Joseph A., M.D., 7200 Manchester, St. Louis 17. St. Louis Medical Society.

Ramsey, Robert H., M.D., 1325 S. Grand Ave., St. Louis 4. St. Louis Medical Society.

Roberts, Grosvenor G., M.D., 701 E. 63rd St., Kansas City 10. Jackson County Medical Society.

Stanfield, Ned M., Jr., M.D., 1536 Papin St., St. Louis 3. St. Louis Medical Society.

Taylor, Elmer W., M.D., 807 Main St., Lockwood. Barton-Dade County Medical Society.

Vacca, Joseph B., M.D., Ft. Sam Houston, San Antonio, Texas. St. Louis Medical Society.

Waters, Clarence N., M.D., 1325 S. Grand Ave., St. Louis 4. St. Louis Medical Society.

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*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

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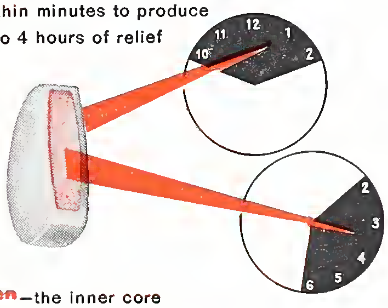

then—the inner core disintegrates to give 3 to 4 more hours of relief

Also available: Triaminic Juvelets, timed-release, half-dosage tablets; Triaminic Syrup, for children and those adults who prefer a liquid medication.

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Councilor District News

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, COUNCILOR

Lincoln-St. Charles Medical Society

Twenty-five physicians attended a dinner meeting of the Lincoln-St. Charles Medical Society on Tuesday night, June 24, at the Southern Air, Wentzville.

A period of fellowship preceded the dinner and program. The refreshments and dinner were compliments of Pfizer Laboratories.

The scientific program for the evening was presented by Charles R. Doyle, M.D., St. Louis. Dr. Doyle gave a most interesting and informative discussion on "The Management of Thrombophlebitis and the Post Phlebitic Syndrome."

PAUL ROTHER, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri County Medical Society

The Mid-Missouri Medical Society and its ladies held a dinner meeting at the Nelson Hotel, Lebanon, on Thursday night, June 26.

M. Pinson Neal, M.D., Columbia, presented an interesting "CPC Case" which had been treated at the Missouri University Medical Center after referral from the Rolla region.

F. H. Johnson, M.D., Lebanon, discussed the "Clinical Phase of the Case."

A copy of the protocol of the case had been sent to members of the medical society approximately two weeks prior to the meeting.

This type of program is enjoyed by the society, and we are always assured of an interesting and lively discussion when Dr. Neal presents one of his CPC's.

M. K. UNDERWOOD, M.D., *Secretary*

South Central Counties Medical Society

The South Central Counties Medical Society met at the City View Cafe, Mountain Grove, on Wednesday night, June 25.

Drs. Don Overend and Walter Germain, Springfield, were guest speakers for the evening. They discussed various phases of "Erythroblastosis." They presented interesting papers on this subject.

Following the scientific meeting a short business meeting was held. Dr. Paul H. Beckman, Houston, was elected to membership in the society and Dr. Frank A. Elders, Houston, transferred to the society from the Mid-Missouri Medical Society.

Dr. M. L. Fowler, President, presided at the meeting. Others present included Dr. and Mrs. S. W. Connor, Mountain Grove; Dr. and Mrs. C. W. Cooper, Thayer; Dr. Harold Miller, Willow Springs; Dr. D. E. Tiffany, Mountain View; and Drs. Jack N. Wiles and Rollin H. Smith, West Plains.

Our next meeting will be our annual picnic at Dr. Cooper's cabin on Spring River on July 17.

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

Marvin Rosecan, M.D., of St. Louis, gave the scientific presentation at the Mineral Area County Medical Society meeting on Thursday night, June 26, in the Clinic Building of the State Hospital, Farmington.

His subject was "Recognition and Treatment of Disorders of Adrenal Function, Including the Use of Newer Synthetic Adrenal Steriod Hormones."

Doctors in attendance who are members of the Missouri Academy of General Practice are entitled to Postgraduate Credit toward Academy requirements from this program.

JACK FOSTER, M.D., *Secretary*

Pemiscot County Medical Society

The June 12 meeting was called to order by the president, Joseph Poff, M.D., after dinner and held in the hospital dining room. The following members were present: Drs. Aquino, Caldwell, O. W. Cook, J. Duckworth, Gubin, McCoy, Morris, J. Poff, Shirey and Grable. Dr. L. B. Painter was excused for a valid reason. No minutes of the last meeting were read, since the April meeting was not held in a formal manner.

Arthur Dalton, M.D., who had originally been scheduled to speak at the June meeting, was detained by bad weather coming from St. Louis, so no scientific program was held.

Alan Gubin, M.D., was named the Program Chairman for the July meeting and John Duckworth, M.D., was named chairman for the August meeting.

No new business was conducted at this time.

Having no further business at hand, the meeting was adjourned.

JOHN K. DUCKWORTH, M.D., *Secretary*

ASK HELP IN TRACKING CAUSE OF PARALYTIC DISEASE

The new National Foundation is asking help in obtaining specific data on "paralytic disease that may occur in persons having received three inoculations of the Salk vaccine."

The National Foundation, formerly the National Foundation for Infantile Paralysis, asks that any Missouri physician finding such a situation call the state office of the foundation at Jefferson City. The telephone number is 6-6133. The foundation will supply containers and instructions for the needed specimens. The material will go directly to Dr. Jonas E. Salk's laboratory in Pittsburgh.

The state office of the foundation reports that, as yet, it knows of "no cases of paralysis in triply-vaccinated persons occurring in Missouri."

The office added that some similar cases across the nation, originally assumed to have been genuine poliomyelitis, turned out to have been due to agents other than one of the three known types of poliovirus.

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Monilial
overgrowth
is a factor

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SUPPLIED:
CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin. ORAL SUSPENSION (cherry-mint flavored) Each 5 cc. teaspoonful contains 125 mg. tetracycline HCl equivalent (phosphate-buffered) and 125,000 units Nystatin.

DOSAGE:
Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules or 8 tsp. of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

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From the Medical Schools

UNIVERSITY OF MISSOURI

Enrollment in the School of Medicine

The office of the Dean presents the following summary on the student body in the School of Medicine, School of Nursing, and the students of the University taught by the faculty of the School of Medicine:

Enrollment during the last four school years for the School of Medicine:

	First Yr.	*Second Yr.*	*Third Yr.*	*Fourth Yr.*	*Total*
1954-55	45	48	0	0	93
1955-56	45	43	25	0	113
1956-57	75	39	33	23	170
1957-58	75	65	31	33	204
School of Nursing 1957-58					187

Enrollment in courses offered in the School of Medicine for other Divisions:

	Department Graduate Students	*Others**	*Total*
Anatomy	1	94	95
Biochemistry	6	59	65
Microbiology	9	579	588
Physiology and Pharmacology	7	384	391
GRAND TOTAL			1,139

* Undergraduates of other University Schools enrolled in courses offered by the Departments in the School of Medicine.

Graduation

At the Commencement Exercises held at the University of Missouri on June 6, 1958, thirty-two students from the School of Medicine received M.D. degrees. All thirty-two students receiving their degrees were residents of the State of Missouri, and all had received their full four-year training at the University of Missouri School of Medicine. Of the thirty-three enrolled fourth-year students, thirty-two graduated. One of the students completed his course in July of 1958.

All graduates have received internships in fully approved hospitals throughout the United States with the exception of the only woman graduate who did not elect to take her internship at this time.

Of the seventy-five beginning first-year students, four were eliminated at the end of the first semester and one was eliminated at the end of the second semester. One of the first-year students withdrew during the first semester and one the second semester due to personal reasons other than course failure. Of the sixty-five begining the second year in the School of Medicine, two were eliminated at the end of the first semester and two transferred to other schools. Of the thirty-one third-year students, thirty registered for the fourth-year program on June 9, 1958.

New Student Admissions

From a group of 208 Missouri residents requesting admission to the School of Medicine, the Admissions Committee accepted seventy-five students for the new first-year class of 1958. As of July, applications of sixty-six students were rejected because of low scholastic records, sixteen withdrew their applications after acceptance, twenty-six withdrew their applications before action was taken by the Committee, and the remainder have been placed on an alternate list from which to fill the accepted group if any student withdraws acceptance.

A meeting of the Central Missouri Hospital Council was held on June 26 in the Medical Center Auditorium. This was the regular business meeting of the Council.

The Missouri Association for Retarded Children met at the Medical Center Auditorium on June 28 and 29. Approximately 125 people were in attendance for the two day meeting. The group also toured the University Hospital and the Medical Science Building.

Guests

Dr. Chauncey D. Leake, professor of pharmacology of Ohio State University College of Medicine, visited the campus of the University on July 14. Dr. Leake presented an illustrated talk on "Problems of Cellular Swelling" in the Medical Center Auditorium at 3:30 p.m. and at 7:30 p.m., Dr. Leake spoke as a University Lecturer in Jesse Hall Auditorium on the subject of "Drugs Altering Mood and Behavior." Dr. Leake is an outstanding pharmacologist and is well known for his studies on morphine and anesthetic agents. He is recognized as an outstanding speaker on numerous subjects of interest in biology and medicine.

Trips and Talks

Dr. Roscoe L. Pullen, Dean of the School of Medicine, attended the Conference on the Handicapped in Missouri sponsored by the Missouri Health Council and the Nemours Foundation of Delaware on June 19, 20, and 21 in St. Louis. Dr. Pullen presented the summary of the meeting on Saturday, June 21, in an address entitled "We Are Here—Where Are We Going?" On July 12, Dr. Pullen attended a meeting of the Committee on Problems of the Aged sponsored by the State Division of Health and held in Jefferson City, Missouri. The Committee reviewed the projects in Greene and Jefferson Counties.

Dr. S. O. Landry, Jr., assistant professor of anatomy, attended the meeting of the American Society of Mammalogists held at the University of Arizona, Tucson, Arizona, on June 18. Dr. Landry presented a paper entitled "Evidence for the Fundamental Relationship of Rodents and Lagomorphs."

Dr. Owen J. Koeppe, associate professor of biochemistry, attended a course in Radioisotope Techniques held at Oak Ridge, Tennessee, from June 14 to July 15.

Dr. Thomas W. Burns, associate professor of medicine, and Dr. William D. Gaunt, assistant professor of medicine, attended various meetings of the American Medical Association and other societies held in San Francisco, from June 16 to 28.

Dr. James T. Barrett, assistant professor of microbiology, while on vacation, visited the Department of Microbiology of the University of Iowa and the University of South Dakota Medical Schools.

Dr. William B. Pingelton, assistant professor of obstetrics and gynecology, attended the International Federation of Obstetrics and Gynecology World Congress held in Montreal, Canada, from June 23 to 27. On July 9 and 10, Dr. Harold Haugen, assistant professor of obstetrics and gynecology, attended the Rocky Mountain Cancer Conference held in Denver.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, attended the meeting of the Dunklin County Medical Society held in Kennett on June 17 and spoke to the group on the "Office Practice of Cytology." On July 2, Dr. Flynn and Dr. Vincent P. Perna, assistant professor of pathology, attended a

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Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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meeting sponsored by the Missouri Society of Medical Technologists held in Kansas City. The purpose of the meeting was to plan workshops for technologists for the coming year in the state of Missouri.

Dr. M. Pinson Neal, emeritus professor of pathology, attended the meeting of the Mid-Missouri Medical Society held in Lebanon on June 26. Dr. Neal presented an interesting Clinical Pathological Conference case treated at the University of Missouri Medical Center.

Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics, and Dr. Helen Waiches and Dr. Paul Zee, instructors in pediatrics, attended the annual meeting of the American Diabetes Association held in San Francisco from June 19 to 23. Dr. Jackson also attended the meeting of the American Medical Association held in San Francisco on June 26 and participated in the program by making a presentation on "Diet in Adolescence."

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, was a panel member of the discussion on "Should Nuclear Testing Be Stopped?," sponsored by the Student Union Forum and held on July 10, 1958 at the Student Union.

Dr. Theodore E. Keats, associate professor of radiology, attended the meeting of the American Medical Association held in San Francisco, and on June 25, presented a paper entitled "An Analysis of the Prognostic Significance of the Roentgen Manifestations of Lung Cancer." Dr. Lodwick and Dr. John Dorst of Iowa City are co-authors with Dr. Keats on this paper.

Dr. Hugh E. Stephenson, professor and chairman of the Department of Surgery, was initiated into the American College of Chest Physicians in San Francisco on June 21. On the 22nd, Dr. Stephenson attended the Scientific Sessions of the Society of Vascular Surgery and on the 23rd, attended the annual meeting of the American Medical Association. While in California, Dr. Stephenson also visited the U.C.L.A. Medical School.

Dr. Kenneth K. Keown, professor of anesthesiology, attended the Board of Governors meeting held in Chicago on June 20, and also participated in the giving of examinations of the American College of Anesthesiology.

New Appointments

Dr. Joseph O. Ankenbrandt has been appointed assistant instructor and second-year resident in surgery effective July 1. Dr. Ankenbrandt received his M.D. from St. Louis University and served as resident at the Veterans Administration Hospital in St. Louis.

Dr. Jack S. Sanders has been appointed assistant instructor and second-year resident in medicine effective December 1. Dr. Sanders was previously appointed to this position in 1956 but was called to the Armed Forces and will resume his duties at this time. He received his M.D. in 1955 from Harvard University.

Gifts and Grants

Dr. Robert L. Jackson, professor of pediatrics, has been awarded a grant by the Department of Health, Education, and Welfare, National Institutes of Health, in the amount of $15,000 for the study of Arthritis and Metabolic Diseases.

WASHINGTON UNIVERSITY

Research Grants Announced

Grants totaling $22,770 for heart research have been awarded to the Washington University School of Medicine by the Life Insurance Medical Research Fund. Dr. Richard J. Bing, professor of medicine and chief of the Washington University Medical Service at Veterans Hospital, received a $14,520 award, and Dr. John E. Kirk, associate professor of medicine and director of research in the division of gerontology, was given an $8,250 grant. The awards are part of more than $1,000,000 in grants awarded by the Life Insurance Medical Research Fund for this year. Dr. Oliver H. Lowry, professor and head of the department of pharmacology was awarded $48,000 by the National Science Foundation. The grant extends through three years and continues a previous three-year grant for research in the field of riboflavin enzymes. Dr. Helen Burch, associate professor of pharmacology, is directing the research which involves a study of metabolic processes governed by riboflavin enzymes and the effects on animals of a diet deficient in riboflavin. A Christmas Seal Research grant of $2,000 was presented to Dr. Thomas H. Burford, professor of thoracic surgery, by the Tuberculosis and Health Society of St. Louis. The grant will finance a study of the movement of several antibiotics in the chest area. Robert F. Malison, senior medical student at Washington University, was awarded a $400 March of Dimes fellowship for eight weeks of special research in the biological and physical sciences related to medicine. Three Washington University eye specialists were awarded grants from the National Institute of Neurological Diseases and Blindness to help defray travel expenses to the International Congress of Ophthalmology Sept. 8 to 12 in Brussels. They are Dr. Paul A. Cibis, associate professor of ophthalmology, and Drs. Robert C. Drews and Albert P. Ley, who are assistant trainees in ophthalmology. Dr. Cibis will present a paper on the experimental production of cataracts in rabbits by radiation and drugs that simulate radiation exposure.

Appointments

Dr. Myron W. Wheat, Jr., instructor in thoracic surgery at Washington University School of Medicine, has accepted the position as assistant professor of surgery at the University of Florida College of Medicine, Gainsville. Dr. Wheat will also be chief of the section of thoracic surgery at the College of Medicine. The new appointment became effective Sept. 1. Chief resident in general surgery at Barnes Hospital from 1955 to 1956, Dr. Wheat has been clinical fellow in thoracic surgery at Washington University for the last two years. He received his undergraduate degree from Washington University in 1949; his medical degree in 1951.

Dr. Carl V. Moore, Busch professor and head of the department of medicine, has been appointed to the National Advisory Arthritis and Metabolic Diseases Council to serve through September, 1962. He will advise and make recommendations about extramural activities of the institute to Dr. Leroy E. Burney, surgeon general of the Public Health Service, and director of the National Institute of Arthritis and Metabolic Diseases. The advisory council recommends research grants to scientists in hospitals, universities and other non-federal institutions. The grants are made by the surgeon general.

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for sound obesity management
dextro-amphetamine plus vitamins and minerals

I was too little

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stimulates appetite and growth
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TUBERCULOSIS ABSTRACT

Clinical Experience With 682 Cases of Asian Influenza

Influenza has affected mankind with varying intensity for many years, but only since the epidemic of 1933, when type A influenza virus was isolated, has this disease yielded to accurate laboratory as well as clinical diagnosis. In April 1957 influenza once again began one of its characteristic peregrinations spreading rapidly from Asia to Europe and the United States, and eventually involving most of the world. The causative virus of this "Asian influenza" was identified as A/Japan/305/57.

The clinical material herein presented concerns 682 cases of Asian influenza seen during October and November 1957 in an epidemic characterized by sudden, dramatic onset in a select population of previously active, healthy, military personnel.

The distribution of symptoms encountered in the 651 uncomplicated cases of influenza appear to be nonspecific, but distinct individual characteristics of the following six symptoms were easily discernible and contributed greatly to the facility with which the clinical diagnosis could be made:

Headache, characteristically dull, severe, and unremitting, located frontally or retro-orbitally, and often associated with marked somnolence, was a repeated complaint.

Fatigue, overpowering in nature, completely incapacitating healthy young men.

Cough, typically dry, irritating, and nonproductive was characteristic.

Chills, more correctly frank rigors, was a dependable, readily recognized symptom.

Ocular pain, aggravated by any and all motion of the eyes, was an unmistakable finding.

Myalgia, referred to the low back area, was an often-repeated complaint.

In contrast, other common symptoms such as soreness of the throat, chest pain, anorexia, nausea, and vomiting were notably insignificant.

The findings on physical examination of the chest, including inspection, palpation, percussion, and ausculation, were strikingly negative. Very rarely were minor scattered rhonchi, occasional wheezes, and less frequent discrete rales heard. Plethoric facies associated with elevated temperatures were found uniformly. Pharyngeal injection, nonspecific in type, and associated with discrete, mobile, slightly tender cervical lymph nodes, was common.

Laboratory findings were nonspecific and of little diagnostic value. Because of the involvement of many of our laboratory personnel, bacteriologic studies were of necessity minimal. Hematologic observations revealed normal hemoglobin. The white blood cell count generally was found to be between 5,000 and 9,000 per cu. mm. with little in the differential count that varied from normal. A relative lymphocytosis was observed frequently. Urinary abnormalities were infrequent and cleared spontaneously. Roentgenograms of the chest were taken on all patients. In uncomplicated cases of influenza the chest films were uniformly normal.

Shortly after the onset of the epidemic, blood specimens were drawn from 16 patients, in order to determine the nature of the afflicting virus. Subsequently, only one patient from each 100 was studied serologically. A fourfold or greater increase in antibody titer in the convalescent specimen as compared to the acute stage specimen was considered positive evidence of infection. The results of these studies indicated that the offending agent was the Asian influenza virus, A/Japan/305/57.

Vaccination of local military personnel was begun as soon as the polyvalent vaccine with Asian strain included became available for wide-scale use in the area. Personnel were immunized on one occasion by intradermal injection of 0.1 ml. in each arm. Of the 682 patients with influenza in this series, 376 (55 per cent) had not been immunized, 201 (30 per cent) had been immunized one week before they became ill, and 105 (15 per cent) had been immunized two weeks prior to the onset of illness. There was no discernible difference in clinical picture, complications, or course of the disease between the immunized and nonimmunized groups.

Among the uncomplicated cases 91 per cent had a temperature curve characterized by a progressive downward trend, reaching normal levels in 48 to 72 hours without salicylate therapy. In 9 per cent of the cases, there was a persistent febrile response which reached normal only after five to seven days of hospitalization.

As is well recognized, the principal dangers in an influenza epidemic lie in the complicating illnesses. The most important clinical aid in detecting a developing complication was the characteristic temperature response if continuous salicylate therapy was not employed. Every one of the 31 patients in our series was developed a complicating illness failed to become afebrile in 72 hours. Their temperature curves became normal only after six to seven days.

Although this type of response was exactly like that found in 9 per cent of the uncomplicated cases in this series, it provides an urgent clinical warning to the practicing physician. When such a febrile response is encountered, careful re-evaluation of the case with appropriate diagnostic procedures, including the necessary radiologic technics, is in order, to rule out the presence of a complicating infection.

The principal treatment of uncomplicated cases in this series was bed rest, supported by fluids, administered by mouth in large quantities. Simple expectorants were used, and where indicated, mild analgesics and nasal decongestants were used. With this simple but effective regimen, the average hospital stay was six days. Hospitalization was necessary only as an epidemiologic control measure.

We used only symptomatic therapy in all cases of this series, with the exception of appropriate chemotherapy when a distinct complication attributed to secondary infection occurred.

This clinical study provided convincing evidence that complications arising from influenza are easily and accurately recognized by clinical means. Provided sustained antipyretic therapy in the form of salicylates is not employed, a characteristic febrile response provides a reliable clue to the presence of a complication. When such a febrile reaction is observed, the physician must carefully reappraise the situation and search for

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Issued by the National Tuberculosis Association.

Lawrence S. Greene, Lieutenant, MC, USNR, Thomas E. Hair, Jr., Lieutenant, MC, USNR, *United States Armed Forces Medical Journal,* March, 1958.

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Capsules / Oral Suspension

designed for effective control of common gram-positive infections

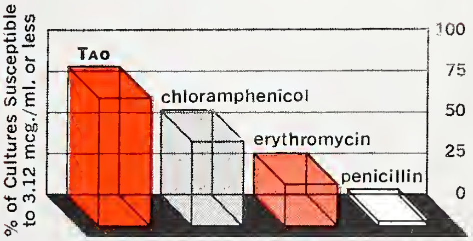
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. Tao has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to Tao, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

plus . . . stability in gastric acid • rapid, high and sustained blood levels • high urinary concentrations • outstanding palatability in a liquid preparation

Dosage and Administration: Dosage varies according to the severity of the infection. For adults, the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. For children 8 months to 8 years of age, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since Tao is therapeutically stable in gastric acid, it may be administered at any time, without regard to meals.

Supplied: Tao Capsules—250 mg. and 125 mg.; bottles of 60. Tao for Oral Suspension—1.5 Gm.; 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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the locus of a secondary infection. Once discovered, the complication can be effectively treated. Inexpensive, readily-available medications are adequate for successful therapy of influenza.

SUMMARY

A clinical study was made of 682 cases of influenza seen in a sudden epidemic in a military population and serologically confirmed as caused by the Asian influenza virus. It was found that the disease presented a distinct symptom complex which made possible accurate diagnosis on a clinical basis. Physical and laboratory findings tended to be insignificant in uncomplicated cases. In 91 per cent, the temperature decreased steadily to reach normal in 40 to 72 hours, but in 9 per cent it fluctuated between 101° and 102° F. for several days. Immunization either one or two weeks prior to onset of the illness had no discernible effect on the clinical picture or course of the disease.

Symptomatic treatment without use of antibiotics resulted in rapid recovery with no fatalities. Complications in 4.6 per cent of the cases were successfully treated with antimicrobial agents. Provided sustained salicylate therapy is not used, every case in which a complicating bacterial illness occurred was heralded by a characteristic elevated temperature for more than 72 hours providing a clear warning that search for such a possible complication should be undertaken.

Across Missouri

(Continued from page 961)

of that year, with reapportionment effective in the November 1962 elections.

Homer Wadsworth of Kansas City has been named chairman of the President's Citizen Advisory Committee on the Fitness of American Youth.

Kansas City's health department is being completely reorganized with one new official directing both health and hospital services. The new director is Dr. Abraham Gelperin of Chicago.

The reorganization includes the integration and merger of both General Hospitals, already started but not to be completed until next summer. General Hospital No. 1 formerly was used for whites and No. 2 for Negroes.

Dr. Hugh L. Dwyer, former health director, will be director of public health services. Dr. B. I. Burns will be medical superintendent, with Dr. Brahm J. Geha co-ordinating medical services. Dr. Geha's job includes medical director of the outpatient clinics.

Kansas City also is carrying on an intensive campaign to rid itself of rats. The infestation threatens all parts of the city, with the rodents powerful enough to drag away a loaf of bread. Kansas City's rat is the Norway rat that grows to measure 20 inches from nose to tail-tip.

The *Kansas City Star* reports the problem has grown over the years, with a lack of city revenue being the principal reason. Lack of municipal trash collection, health personnel to combat the rats through the years, as well as broken sewers are mentioned by the newspaper.

Missouri Division of Health

(Continued from page 956)

fections will be made to ascertain the frequency of human leptospirosis. The program may be restricted to one district or to several counties which the reported incidence is high. Outbreaks involving dog kennels will be investigated and, should time permit, individual canine cases will also be evaluated.

EXIT BRUCELLOSIS

The incidence of brucellosis is on the wane. Dr. Price reports that the Missouri blood testing plan of all beef and milk herds will mean fewer cases of human infection. He also says the regulations will mean expanded profits for milk producers, once brucellosis is eliminated from the herds.

College veterinary specialists say that infected cattle produce up to 20 per cent less milk. They calve less frequently and the calves they do produce are weak and affected.

According to Dr. L. A. Rosner, D.V.M., state veterinarian, 15 counties in Missouri are now certified free of brucellosis, 51 counties are in the act of being tested, 18 counties have completed signed petitions, 20 counties are circulating petitions at the present time and 10 counties have done nothing so far. These 10 counties are mostly in southeast Missouri where there are few cattle.

The Missouri Division of Health hopes to report the exit of brucellosis from Missouri by January 1, 1960.

SOUTHEAST MISSOURI CANCER CONFERENCE

The fifth annual Southeast Missouri Cancer Conference will be held Sunday, September 21, at the Marquette Hotel, Cape Girardeau. Registration, which is without fee, will begin at 12:30 o'clock and the session will begin at 1:30 and run to 5:00 o'clock, after which there will be a social hour and banquet with another session at 7:00 o'clock.

Speakers at the conference will be William D. Davis, Jr., M.D., head of the Department of Gastroenterology, Ochsner Clinic, and assistant professor of clinical medicine, Tulane University, New Orleans; Harry M. Spence, M.D., clinical professor of urology and chairman of the Department of Urology, Southwestern Medical School of the University of Texas; Don C. Weir, M.D., associate clinical professor of radiology at St. Louis University School of Medicine and director of the Department of Radiology of St. Louis City Hospital; Terry E. Lilly, Jr., M.D., consultant on surgery, Ellis Fischel State Cancer Hospital, Columbia.

Inquiries and reservations should be sent to Harold B. Rapp, M.D., Chairman, Arrangements Committee, 937 Broadway, Cape Girardeau.

"Unsaturated Fats and Serum Cholesterol"

...a review of the latest Concepts and Results of Current Research

Now ready for distribution to physicians as a special service by Corn Products Refining Company, this book supplements and supersedes the 1957 monograph "Vegetable Oils in Nutrition" and provides a broader coverage of this important subject.

This new book is the most up-to-date annotated bibliography on current research pertaining to:

1. The origin and behavior of cholesterol in the human body;
2. The effect of different dietary fats on serum cholesterol levels;
3. The nature of the active components in vegetable oils;
4. Suggestions for practical diets.

As a regular part of daily meals Mazola® Corn Oil can be used for control of serum cholesterol levels

MAZOLA CORN OIL, a natural food and a superior salad and cooking oil, used as part of the daily diet, can be helpful in the control of serum cholesterol levels.

Extensive clinical findings now show that serum cholesterol levels tend to be lower when an adequate amount of MAZOLA CORN OIL is part of the daily meals... high levels are lowered, normal levels remain normal.

MAZOLA...the only readily available vegetable oil made from golden corn oil... is rich in the important unsaturated fatty acids. 85% of all the fatty acids in MAZOLA are unsaturated and 56% of the fatty acid content is linoleic.

As a result, MAZOLA CORN OIL is unusually well suited for helping achieve dietary adjustments commonly recommended by authorities on nutrition—that from one-third to one-half of the total fat in-take should be of the unsaturated type when serum cholesterol control is a problem.

Being a natural food, MAZOLA CORN OIL can be included as part of the every day meals—simply and without disturbing the patient's usual eating habits.

Each Tablespoonful of Mazola* Corn Oil Provides Approximately 126 Calories—and:

Linoleic Acid	7.4 Gm.
Sitosterols	130 mg.
Natural Tocopherols	15 mg.

Typical Amounts Per Diet

For a 3600 calorie diet	3 tablespoonsful
For a 3000 calorie diet	2.5 tablespoonsful
For a 2000 calorie diet	1.5 tablespoonsful

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Book Reviews

The Spine Jack Operation for Scoliosis, by H. Leslie Wenger, M.D., American Board of Orthopedic Surgery. 1957.

The follow-up on this work is inadequate. The mortality rate is extremely high for an elective procedure, especially since the procedure has not yet proven to be effective over a long period of time. This pamphlet should not be recommended for a library. R. K. E.

Atlas of Clinical Endocrinology, Including Test of Diagnosis and Treatment, by H. Lisser, M.D., Clinical Professor Emeritus of Medicine and Endocrinology, University of California School of Medicine, San Francisco; Former President, The Endocrine Society; and Roberto F. Escamilla, M.D., Clinical Professor of Medicine, University of California School of Medicine, San Francisco, Civilian Consultant and Chief of Endocrine Clinic, Letterman Army Hospital, San Francisco. With 148 Plates, including 3 in Color. The C. V. Mosby Company, St. Louis. 1957. Price $18.75.

This text is all that the title implies. The subject of clinical endocrinology is completely covered in minute detail.

The text is divided into eleven sections devoted to the principal endocrine glands with a section covering miscellaneous growth anomalies and one designated appendix which contains growth and developmental charts.

The manner of presentation is clear and well planned. Each entity is defined and the symptoms, signs and helpful laboratory tests clearly outlined. Treatment is specific with added discussion of questionable therapy. Detailed chemical studies and animal experimentation are omitted.

Photographs and case discussions are exceptional and are expressive of the vast experience of the authors. It is hard to conceive of any clinical entity in the field of endocrinology that the clinician may encounter that is not included in this book.

This text is closest to bedside teaching that is conceivable. D. L. S.

Orthopedic Surgery in the European Theater of Operations—Surgery in World War II, Medical Department, United States Army. Editor in Chief, Colonel John Boyd Coates, Jr., MC; Editor for Orthopedic Surgery, Mather Cleveland, M.D.; Associate Editor, Elizabeth M. McFetridge, M.A. Office of the Surgeon General, Department of the Army, Washington, D. C. 1956.

This book principally records the military experience of Mather Cleveland in the European theater, where this reviewer also happened to be stationed. It apparently abstracts numerous Army directives re-

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garding the setup and organization of field evacuation and general hospital installations, and the rationale of their staffing with consultants. Some directives are also given as to the initial and intermediate treatment of certain types of injuries. There are a few articles of scientific merit which have been published previously by the same authors in the *Journal of Bone and Joint Surgery,* where they have been cross indexed and are already in the living literature. Other than an Army reference book, this manual has little merit and is not recommended for reading. G. P.

General Surgery, Volume II, Medical Department, United States Army Surgery in World War II. Editor in Chief Colonel John Boyd Coates, Jr., MC; Editor for General Surgery, Michael E. De Bakey, M.D., Associate Editor W. Philip Giddings, M.D., and Elizabeth M. McFetridge, M.A. Office of the Surgeon General, Department of the Army, Washington, D. C. 1955.

This volume is a record of the performance of an auxiliary surgical group done in the European theater. It possibly has some value as a reference book to a surgical chief having to organize a theater of operations. It also has some slight historical value. Principally, I feel it is a waste of the taxpayer's money, and do not recommend that it be read by anyone. G. P.

The Practice of Medicine, edited by Jonathan Campbell Meakins, C.B.E., M.D., LL.D., D.Sc.; and 24 Associate Editors. Sixth Edition. With 318 Illustrations, including 4 in Color. The C. V. Mosby Company, St. Louis. 1956. Price $16.00.

The new edition of this well established textbook has had a change in make up which includes associate editors and contributors. It is almost encyclopedic in coverage and is, all in all, a satisfactory text.

Its bulk, as is the case with many modern textbooks, is a deterrent to easy reading. This reviewer would prefer two volumes to one of such bulk.

All in all, it is a book which may well be included in every physician's reference library. R. O. M.

A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology, by Torald Sollman, M.D., Professor Emeritus of Pharmacology and Materia Medica, School of Medicine, Western Reserve University, Cleveland, Ohio. Eighth Edition. W. B. Saunders Company, Philadelphia. 1957. Price $20.00.

Modern pharmacology is presented in this recent edition. The chief value of this textbook is that it presents, in one place, a digest of the recent literature pertaining to pharmacology. The bibliography requires 155 pages, more than 10 per cent of the book's pages, and contains only references which were published since 1940.

In the text consideration of drugs has been relegated to small type, which permits the rapid separation of the new and important from the old and unimportant. Although its size imparts a somewhat forbidding aspect, it is nevertheless one of the primary standard reference books of pharmacology. C. J. S.

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Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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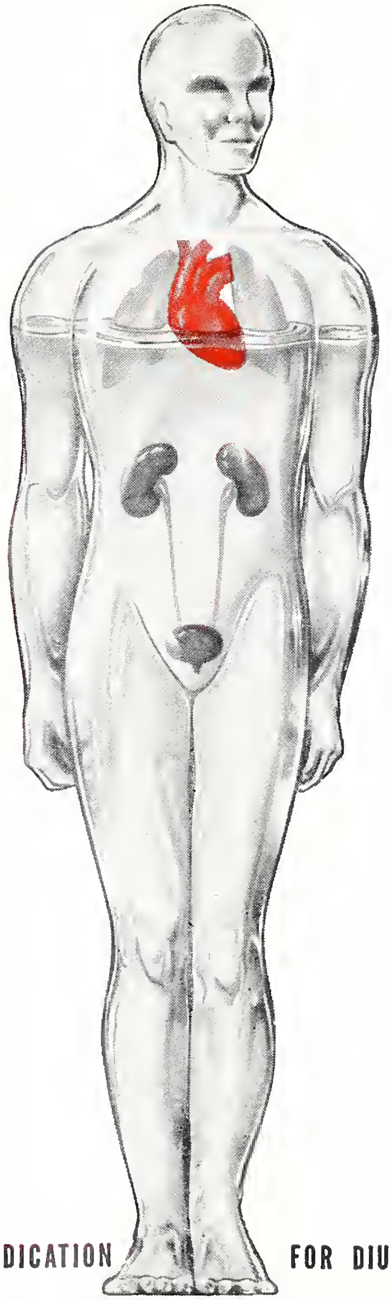

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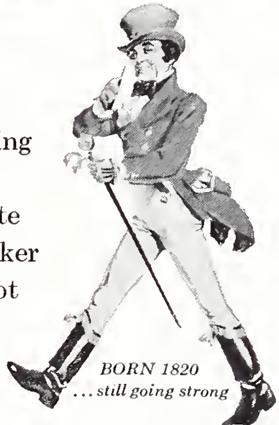

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Polio and Arthritis Groups

(*Continued from page 994*)

cate the work of other voluntary agencies. He did add, however, that as scientific break-throughs occur they will be pursued wherever they lead, with the general objective of improvement of man's health.

VAST INCREASE IN GOAL

The March of Dimes, a 20-year-old institution, will finance the new foundation's expanded program, O'Connor said. The group is expected to seek 60 million dollars for its first year of its new program. Last year's March of Dimes raised 35 million dollars.

"As the time was ripe 20 years ago for a voluntary organization to fight a single threatening disease," O'Connor explained, "so the hour now is right to enter the broader battle to which our experience has led us."

A total of 11 million persons are believed to have arthritis and rheumatism; 250,000 children are born with significant birth defects each year; and an estimated 150,000 persons who have had paralytic polio still require assistance.

The Arthritis Foundation, which raised almost 3 million dollars last winter, indicated it plans to hold its annual fall drive for contributions.

With United Funds drives scheduled to start this month in many areas, there is concern in some quarters. Some view the merger breakdown between the old polio group and the arthritis people merely as a bellwether of trouble brewing between other fund-raising groups.

The basic problem apparently shaping up is: Should money be raised in a United Funds-approach or through individual solicitations by a national organization, such as the new National Foundation?

As the Kansas City *Star* commented editorially: "Apparently a battle is in the making, a battle for the 800 million dollars that the American people are giving to health funds each year.

Two large national groups, the American Cancer Society and the American Heart Association reportedly have ordered their local chapters to pull out of all United Funds drives.

The fund raising issue also was raised at the AMA Annual Session in San Francisco, with numerous resolutions introduced.

INDEPENDENT DRIVES STILL O.K.

The much amended one finally adopted said the House of Delegates reiterates "its commendation and approval of the principal voluntary health agencies."

"That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest."

Those favoring a strong United Funds approach, see a single health and research foundation as the best way to direct the money used for research on all major diseases. Opponents, of course, feel that direction should come from the national level to avoid possible duplication of efforts and so on.

Pittsburgh plans to set up a health research and service foundation, according to *The Wall Street Journal.* Miami and Chattanooga, Tenn., reportedly also are working on similar plans. Among other cities with such plans already in operation are Boston, San Diego and San Bernadino, Calif., Lorain and Elyria, Ohio, and Quincy, Mass.

DEATHS

Nienstedt, Elam J., M.D., Sikeston, a graduate of American Medical College, 1913; member of the SEMO County Medical Society; aged 81; died June 29.

Cottrell, Wilson P., M.D., Reed Springs, a graduate of the University of Arkansas Medical School, 1908; member of the Ozark County Medical Society; aged 78; died July 3.

Barrymore, Eugene, M.D., Bowling Green, a graduate of St. Louis University School of Medicine, 1907; member of the Pike County Medical Society; aged 80; died July 12.

Smith, Stephen D., M.D., Columbia, a graduate of St. Louis Medical College, 1896; member of the Boone County Medical Society; aged 91; died July 19.

Bircnboim, Irvin M., M.D., Kansas City, a graduate of Washington University, 1944; member of the Jackson County Medical Society; aged 38; died July 24.

Martin, Thomas M., M.D., St. Louis, a graduate of St. Louis University, 1926; member of the St. Louis Medical Society; aged 55; died July 27.

BOOKS RECEIVED

Orthopedic Diseases, Physiology-Pathology-Radiology, by Ernest Aegerter, M.D., Professor of Pathology and Director of the Department of Pathology, Temple University Medical Center and School of Medicine; Professor of Orthopedic Pathology, University of Pennsylvania Graduate School of Medicine; Chief in Pathology, Philadelphia General Hospital; Consultant in Pathology, Frankford Hospital, United States Naval Hospital and Veterans Administration Hospitals, Philadelphia; and John A. Kirkpatrick, Jr., M.D., Radiologist, St. Christopher's Hospital for Children; Assistant Professor of Radiology, Temple University Medical Center; Radiologist, Children's Heart Hospital; Attending (Radiology), Veterans Administration Hospital, Philadelphia. W. B. Saunders Company, Philadelphia. 1958. Price $12.50.

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Jerome S. Harris (Pd), Durham, No. Carolina
John Collins Harvey (M), Baltimore
Garth L. Jarvis (OG), Galveston, Texas
Robert P. McCombs (M), Boston
George T. Pack (S), New York
Raymond D. Pruitt (C), Rochester, Minn.
John R. Schenken (Path), Omaha, Nebr.
Harry M. Spence (U), Dallas, Texas

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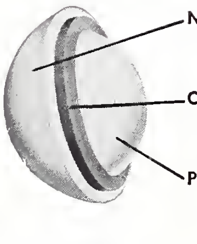

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Curiosa et Trivia

William B. McCunniff, M.D.

Regardless of how many hospital charts and insurance forms you think you fill out, 90 per cent of the writing in the United States is still done with old-fashioned wooden lead pencils.

Approximately one-fourth of all Americans at some time harbor the trichinosis parasite (Trichinella spiralis) in their muscles. Happily, only about 5 per cent of these people become ill.

You think meat is expensive? Hog pituitary glands for production of ACTH sell for about $40.00 a pound.

"Yours for Health," written before the turn of the century, would require no significant alterations (other than new discoveries) today. This sturdy volume, dealing with prenatal care, puberty, birth, menopause, and child training, was authored by Mrs. Lydia Pinkham.

In 1920, 16 per cent of American children had lost one or both parents due to death. By 1956, only 5 per cent had been similarly orphaned.

Brilliance not required: about 15 per cent of medical school freshmen had only "C" averages in pre-med.

Capsule Clinics

I. A. Wien, M.D.

- The effects of an unsaturated fat supplement (soybean) on serum cholesterol was studied in 28 patients, many of whom were suffering from chronic cardiovascular disease. The average age of the subjects was 66 years. Soybean ingestion seemed to have a stabilizing or equalizing effect on blood cholesterol levels. A decrease was usually observed when the pretreatment level exceeded 200 mg. per cent. The reverse was true when the pre-treatment level was below 200 mg. per cent. Albanese, A. A., et al., Gariatrics **13**: 218, 1958.
- Cancer cells were demonstrated in circulating blood in 16.7 per cent of curable and in 31.1 per cent of incurable cancer patients. There is apparently a direct relationship between the stage of the disease and the presence of cancer cells in the blood. Further, there appears to be an increase in the number of cancer cells in circulating blood during resection of the tumor. Roberts, S., et al., Arch. Surg. **76**: 334, 1958.

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From the Francis Roberts Agency, Inc., New York.

Organization

AMERICAN MEDICAL ASSOCIATION

President, Gunnar Gundersen, LaCrosse, Wis.
Clinical Session, Minneapolis, December 2-5, 1958.
Annual Session, Atlantic City, June 8-12, 1959.

MISSOURI STATE MEDICAL ASSOCIATION

101th Annual Session, Kansas City
April 5-8, 1959

President, W. F. Francka, Hannibal.
President-Elect, Ralph Perry, Kansas City.
Vice Presidents, James C. Cope, Columbia; M. T. English, Kirksville; W. O. Finney, Chaffee.
Treasurer, R. O. Muether, St. Louis.
Secretary, J. I. Matthews, Jefferson City.
Editor, Charles R. Doyle, St. Louis.
Speaker of the House of Delegates, O. P. Hampton, University City; Vice Speaker, William C. Mixson, Kansas City.
Field Secretary, Ray McIntyre, St. Louis.
Assistant Editor, Helen Penn, St. Louis.
Executive Assistant, Bill Logan, St. Louis.
Executive Secretary, Tom R. O'Brien, 623 Missouri Theatre Bldg., 634 N. Grand Blvd., St. Louis 3.

Delegates to the American Medical Association

Joseph C. Peden, Sr., St. Louis; alternate, Dean Sauer, St. Louis, 1958-1960. F. L. Feierabend, Kansas City; alternate, Rolla B. Wray, Nevada, 1958-1960. Durward G. Hall, Springfield; alternate, Guy N. Magness, University City, 1959-1961. H. E. Petersen, St. Joseph; alternate, J. Loren Washburn, Versailles, 1959-1961.

Standing Committees

Scientific and Postgraduate Work—John A. Growdon, Kansas City, Chairman (1961); James G. Janney, Jr., St. Louis (1961); John I. Matthews, Jefferson City (1960); Hector W. Benoit, Kansas City (1960); M. Pinson Neal, Columbia (1959). **Associate Members**—W. Paul Maddux, Springfield; J. H. Keim, Cape Girardeau; Charles O. Metz, St. Louis; Wyeth Hamlin, Hannibal; William R. Richardson, Union; Robert Smith, Marceline.

Defense—C. E. Hyndman, St. Louis, Chairman (1960); L. P. Forgrave, St. Joseph (1961); Ronald Elkins, Springfield (1961); Roland S. Kieffer, St. Louis (1959); Joseph G. Webster, Kansas City (1959).

Public Policy and Public Relations—R. O. Muether, St. Louis, Chairman; W. D. Chute, Moberly; R. J. Crider, St. Charles; Rolla B. Wray, Nevada; James E. McConchie, Independence; O. B. Crawford, Springfield; H. W. Carrington, Lebanon; J. J. Bredall, Perryville; John R. Dixon, Brookfield; R. R. Lyle, Versailles.

Medical Education and Hospitals—Kenneth Glover, Mount Vernon, Chairman (1959); George J. L. Wulff. Jr., University City (1961); Doyle C. McCraw, Bolivar (1961); Ralph R. Coffey, Kansas City (1960); Harry K. Purcell, St. Louis (1959).

Cancer—Marvin L. Napper, Springfield, Chairman (1961); Thomas M. Martin, St. Louis (1961); Joseph L. Fisher, St. Joseph (1960); George A. Carroll, St. Louis (1959); George O. Miles, Kansas City (1959). **Associate Members**—John E. Lamy, Sedalia; Bryon E. Watts, Jefferson City; Charles E. Lockhart, Springfield; John J. Modlin, Columbia; A. N. Arneson, St. Louis; E. Kip Robinson, Kansas City.

Medical Economics—A. P. Rowlette, Moberly, Chairman (1961); John R. Forgrave, St. Joseph (1961); A. B. Smith, Kansas City (1960); R. E. Breuer, Newburg (1960); George L. Hawkins, St. Louis (1959). **Associate Members**—Robert D. Duncan, Springfield; G. W. Winn, Boonville; E. D. Imes, Maryville; John T. Crowe, Cape Girardeau.

Mental Health—John J. O'Hearne, Kansas City, Chairman; Robert J. Mueller, St. Louis; H. V. Guhleman, Jr., Jefferson City; James N. Haddock, Webster Groves; D. R. Edwards, Sedalia; A. L. Brown, Springfield; Arnold S. Block, St. Louis; Albert Preston, Jr., Kansas City; John H. Platz, Carrollton.

Maternal Welfare—James E. Keeler, Kansas City, Chairman (1961); Joheph M. Krebs, St. Louis (1961); Joseph L. Johnston, Springfield (1960); William See, Columbia (1959); E. E. Wadlow, St. Joseph (1959); **Associate Members**—P. V. Siegel, Smithton; H. C. Willumson, St. Joseph; A. C. Trueblood, Jr., St. Louis; Irwin T. Craig, Joplin; J. J. Wimp, Kirksville; Forrest C. Long, Savannah; Eugene G. Hamilton, St. Louis; A. B. Sinclair, Kansas City.

Infant and Child Care—Daniel B. Landau, Hannibal, Chairman; H. E. Wachter, St. Joseph; R. J. LaDriere, St. Louis; Guy N. Magness, University City; Leonard L. Davis, Jr., Mexico; James J. Pascoe, Nevada; E. J. Schwartz, Springfield; J. N. Wiles, West Plains; James A. Kinder, Cape Girardeau; Gerald E. Hughes, Kansas City.

Health and Public Instruction—John R. McDaniel, St. Joseph, Chairman (1960); J. Earl Smith, St. Louis (1961); E. A. Belden, Jefferson City (1960); R. R. Grayson, St. Louis (1959); A. W. McAlester, III, Kansas City (1959).

Constitution and By-Laws—W. A. Bloom, Fayette, Chairman (1960); W. L. Allee, Eldon (1961); P. W. Jennings, Canton (1961); H. M. Parker, Kansas City (1959); Kenneth V. Larsen, St. Louis (1959).

Fractures—R. E. Funsch, University City, Chairman (1961); O. P. Hampton, University City (1960); Thomas G. Otto, Cape Girardeau (1960); Paul W. Meyer, Kansas City (1959); Ralph K. Earp, St. Louis (1959). **Associate Members**—William C. Francis, Springfield; B. L. Murphy, Hannibal; Otis E. James, Kansas City; Glenn L. McElroy, Columbia.

Eye Health—T. E. Sanders, St. Louis, Chairman (1961); H. B. Ivy, Springfield (1961); Paul G. Wolff, Cape Girardeau (1960); John McLeod, Kansas City (1959); H. B. Stauffer, Jefferson City (1959). **Associate Members**—Dick H. Underwood, Kansas City; Michael F. Pernoud, St. Louis; D. E. Eggleston, Macon; W. L. Post, Joplin; Robert S. Minton, St. Joseph; W. J. Smith, Hannibal.

Control of Venereal Disease—Edwin M. Powell, Springfield, Chairman (1959); E. M. Cannon, St. Louis (1961); A. W. Neilson, St. Louis (1961); R. J. Murphy, Kansas City (1959); Robert B. Bristow, St. Joseph (1960). **Associate Member**—John E. Byrne, St. Louis.

Industrial Health—H. M. Roebber, Bonne Terre, Chairman (1960); Vencel W. Hollo, St. Louis (1961); William H. Duncan, Kansas City (1961); Douglas A. Ries, Richmond Heights (1960); S. W. Scorse, Joplin (1959). **Associate Member**—James W. Clawson, Springfield.

Diabetes—H. E. Oppenheimer, Clayton, Chairman (1960); J. Bruce Lemmon, Jr., Springfield (1961); H. M. Gilkey, Kansas City (1961); Charles M. Lamke, Columbia (1960); Lucien W. Ide, St. Joseph (1959). **Associate Members**—William H. Olmsted, St. Louis; Robert E. Koch, Clayton; Ralph S. Casford, Kansas City; John H. Walterschied, Hannibal.

Anesthesiology—O. T. Blanke, Joplin (1961); Russell D. Shelden, Kansas City (1961); W. W. Tillman, Springfield (1960); Carl K. Ness, St. Joseph (1960); Seymour Brown, St. Louis (1959).

Hospital and Professional Relations—Hollis N. Allen, St. Louis, Chairman (1961); W. S. Sewell, Springfield (1961); Stanley S. Peterson, Springfield (1960); Carl F. Vohs, St. Louis (1960); Victor B. Buhler, Kansas City (1959). **Associate Member**—W. F. Francka, Hannibal.

Laboratory Medicine—Victor B. Buhler, Kansas City, Chairman (1960); Angelo Lapi, Kansas City (1961); Fred C. Coller, Springfield (1960); J. Owen Blache, St. Louis (1959); Joseph E. Flynn, Columbia (1959). **Associate Member**—Hollis N. Allen, St. Louis

Physical Medicine and Rehabilitation—D. Elliott O'Reilly, St. Louis, Chairman (1961); F. O. Tietjen, Jefferson City (1961); John Cashman, Kansas City (1960); Frank D. Sundstrom, Springfield (1959); W. J. Stewart, Columbia (1959).

Civil Defense—Carl D. Siegel, Sedalia, Chairman; William C. Allen, Glasgow; H. D. Steinbeck, Union; Carroll C. Hungate, Kansas City; A. S. Bristow, Princeton; John R. Forgrave, St. Joseph; J. M. Canella, Hannibal; Curtis H. Lohr, Clayton; R. Ned White, Springfield;. George E. Thoma, St. Louis; George L. Watkins, Farmington; John A. Griffith, Jr., Kansas City (1959).

Special Committees

Tuberculosis—F. E. MacInnis, Kansas City, Chairman; Paul Murphy, St. Louis; Lawrence E. Wood, Kansas City; Joseph L. Lucido, St. Louis; Walter C. Gray, St. Louis; David N. Kerr, St. Louis; Glenn O. Turner, Springfield (1959).

Study of Cardiac Disease—Earl L. Loyd, Jefferson City, Chairman; E. Lee Shrader, St. Louis; William I. Park, Springfield; E. J. McIntire, Carthage; A. M. Estes, Cape Girardeau; G. R. Hudson, Kirksville; W. J. Gillespie, St. Louis; C. A. Potter, Jr., St. Joseph; E. E. Glenn, Springfield; Martin J. Mueller, Kansas City (1959).

Alcoholism—Ralph E. Duncan, Kansas City, Chairman; S. D. Smith, Columbia; Joseph B. Kendis, St. Louis; George W. Forman, St. Joseph (1959).

Rural Medical Service—A. E. Spelman, Smithville, Chairman; W. J. Shaw, Fayette; B. J. Bass, Salem; Jack F. Pearl, St. Clair; Charles H. Lewellen, Louisiana; C. A. McBurney, Slater; Jack Mullen, Bonne Terre; A. J. C. McCallum, Aurora; Charles Lichty, Shelbina (1959).

American Medical Education Foundation—James P. Murphy, St. Louis, Chairman; Hugh E. Stephenson, Columbia; Donald F. Gose, Springfield; T. Reid Jones, Kansas City; H. E. Petersen, St. Joseph (1959).

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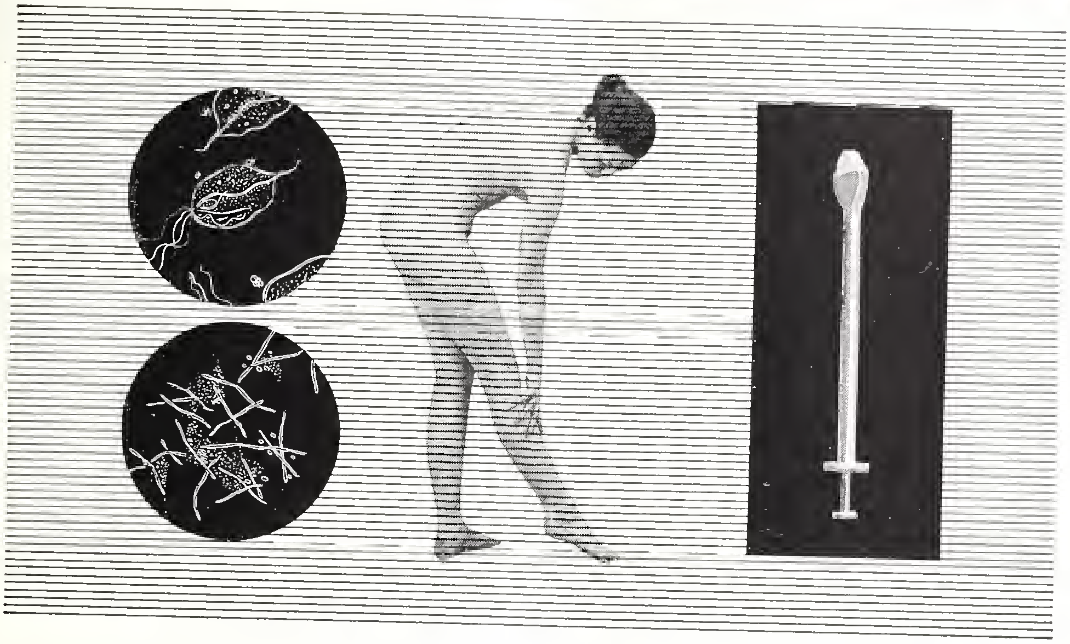

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Floraquin, containing Diodoquin® (diiodohydroxyquin, U.S.P.), eliminates infection and provides boric acid and sugar to restore the acidic pH which favors replacement of pathogens by normal Döderlein bacilli. The danger of recurrence is thus minimized.

Pitt reports[2] consistently good results after daily vaginal insufflation of Floraquin powder for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles.

Intravaginal Applicator for Improved Treatment of Vaginitis—

This smooth, unbreakable, plastic plunger device is designed for simplified insertion of Floraquin tablets by the patient; it places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. A Floraquin applicator is supplied with each box of 50 tablets.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157:*126 (Jan. 8) 1955.
2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25:*182 (Feb.) 1956.
3. Lang, W. R.: Recent Advances in Vaginitis, Philadelphia Med. *51:*1494 (June 15) 1956.

SEARLE

WASHINGTON

Two of the major bills medicine was interested in during the recent 85th Congress are expected to be back when Congress opens its doors in January.

One is the Keogh bill which would have granted tax-deferment on annuities purchased by the self-employed. The fact it cleared the House and received sizable Senate support makes it look hopeful for next year, especially if there is any major adjustment in our income tax structure.

The second measure that concerned all segments of medicine was the Forand bill. This measure to provide free hospitalization for social security recipients died a hard death even though it never got out of committee. Backers of it, mainly labor, promised to trot it out again in January.

The cutback in the Medicare program proved to be the most far reaching in its immediate effects of any legislation passed. More specifically, the change in the program as of October 1 virtually eliminated the element of free choice of physician for dependents (normally wife and children) living with their serviceman sponsor.

Now physicians must establish that the dependent seeking medical care does not live with her sponsor.

If she does live with him, the dependent must produce a permit authorizing civilian medical care. This permit, to be signed by the appropriate military commander, will be furnished whenever military medical facilities are deemed insufficient.

JUST ONE CHANGE HERE

Missouri was more fortunate than most states concerning the changeover. The state's previous contract terminated anyway September 30, dovetailing perfectly with the cutback date. Thus Missouri physicians have just one changeover to go through, instead of two. (A bulletin giving all details already has been distributed by MSMA.)

Medicare officials feel there may still be another cutback early in 1959. As the Washington office of the AMA explains:

"The reason is relatively simple. The 72 million dollars appropriated by Congress for the fiscal year will not be adequate."

Defense Department officials evidently didn't request enough money. Estimated cost of a fully implemented program ran slightly above 90 million dollars.

TO ALLOW THESE OPERATIONS

In spelling out its new restrictions, the Office for Dependents Medical Care said these surgical procedures would be allowed in civilian facilities:

1. Bona fide surgical emergencies which canno be handled on an out-patient basis, e.g. perforated ulcer, bowel obstruction;
2. Acute surgical conditions in which patient is in clinical need of hospitalization without delay e.g. acute appendicitis, strangulated hernia, pelvic abcess;
3. Injuries of such clinical severity as to require hospitalization, but only for treatment of the acute phase.

Elective surgery of all types is ruled out, including interval appendectomies, cosmetic surgery, tonsillectomies, routine hysterectomy and uncomplicated hernias.

Other services to be discontinued for all dependents include treatment of fractures, lacerations and other wounds and injuries not requiring hospitalization.

The retiring Washington director of the Medicare program, Major General Paul I. Robinson, sent his thanks to Missouri physicians for their cooperation during his tenure as executive director. His tour was completed just before Missouri re-negotiated its contract last month.

Under instructions from the House Ways and Means Committee, the Department of Health, Education and Welfare is to conduct a study of medical care of the aged. Also probably as an outgrowth of the interest and concern stirred up by the Forand bill, the Kennedy subcommittee of the Senate Welfare Committee is starting a study of all problems of the aged.

Senator Kennedy's group is to place emphasis on greater utilization of the skills of retired people. Hearings are to start next session.

President Eisenhower also is instructed to call a White House Conference of Aging in January, 1961, under a measure passed late in the session. At this national meeting, federal, state and local leaders will pool their information.

A series of state-organized meetings will precede the conference. The states will be allowed from $5,000 to $15,000 apiece to finance their meetings. This measure had the full support of the AMA.

Neil McElroy, secretary of defense, ruled that the veterinary services in the Armed Forces were to be continued. They were to have been abolished under a ruling of former Defense Secretary Charles Wilson.

A continuation of the doctor's draft act is expected to be asked when the 86th Congress convenes. The Defense Department indicates it is hopeful its requirements can be met through voluntary means. The present act covers the call-

(Continued on page 1132)

ow–the most idely prescribed ranquilizer[1]

n sustained release apsules

Meprospan*

meprobamate (Miltown®) capsules

q. 12 h.

Two capsules on arising **last all day**

Two capsules at bedtime **last all night**

relieve nervous tension on a *sustained* basis, without between-dose interruption

"The administration of meprobamate in sustained action form [Meprospan] produced a more uniform and sustained action . . . these capsules offer effectiveness at reduced dosage."[2]

Dosage: 2 Meprospan capsules q. 12 h.

Supplied: 200 mg. capsules, bottles of 30.

Literature and samples on request

WALLACE LABORATORIES, *New Brunswick, N. J.*
who discovered and introduced Miltown®

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[1] Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.

[2] Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

E-MARK CME-7320

Across Missouri

Missouri has been urged to protect its state's rights in the field of atomic energy by John M. Dalton, state attorney general.

"Atomic development is the biggest thing since the invention of gunpowder," he said. "It will revolutionize our ways of living. The technical and scientific surfaces have only been scratched."

The attorney general said only a few states so far have explored the field as to possible legislation. He commented he thought it would be a good idea if the Missouri 1959 General Assembly would start such a study.

"We have harnessed the atom literally, but not legally," he said, explaining that atomic energy laws eventually would affect almost all state departments. A few he mentioned were health and welfare, insurance, public service commission, conservation, resources and development.

In expressing his concern over state's rights, Dalton told of the monopolies, secrecy safeguards and rigid controls imposed by the federal government in wartime that have been continued on in peacetime.

"The states need laws for many reasons," he said. "Radiation and fallout soon will become problems in every state."

"There should and must be some federal control, but unless the states wake up soon and enact their own atomic legislation, we will find in the not-too-distant future that Washington has control over our daily breathing and state boundary lines will become virtually nonexistent."

Dalton, who delivered a speech on the subject before a section of the American Bar Association meeting in Los Angeles, is president of the National Association of Attorneys General. He also is expected to be one of the leading contenders for the Democratic nomination for governor in 1960.

A complete study and revamping of the state tax framework also has been urged by Attorney General Dalton.

His call for a new look at the state's finances adds another name to the growing list of state officials who have warned of financial straits ahead.

"Our tax structure is jerry-built. It needs streamlining, study, analysis and scientific research," he said. "The backbone of any governmental unit—federal, state, county or city—is the tax framework. That's the skeleton on which the flesh of public service, efficiency and economy must cling."

He outlined three steps the state should take before the taxpayer should accept the idea that more taxes are inescapable.

- "First, we should learn if our state collection agencies are working at their peak efficiency.
- "Second, we must learn if there is any widespread evasion and how we can reach more taxpayers who may not be carrying their share.
- "Third, we must be certain all our government agencies are operating efficiently and not soaking up tax revenue through waste and extravagance."

Dalton added that after we had found the answers to these three questions would be the time to "pursue the quest for new or increased taxes."

State tax collection per person in Missouri is one of the lowest in the nation at $65.72 a year, the Census Bureau reported. Only four states—New Jersey, Nebraska, New Hampshire and South Dakota—are lower. New Jersey, the lowest, took in $51.38 a person last year. At the top is Nevada at $138.12.

Gov. James T. Blair is hopeful that state welfare payments can be boosted in line with recent federal legislation raising the allowable ceilings. He pointed out the increases could only come if the state's financial picture could take it. The matter is sure to come before the next General Assembly which convenes in January. It could affect the aged, the blind, the disabled and the dependent children.

More than 300,000 retired Missourians will get an increase in their social security benefits beginning with the January payment, under the same federal legislation.

The 7 per cent increase enacted by the 85th Congress will mean an average hike of $4.75 a month. The minimum increase will be $3. To pay for this, payroll taxes will go up one-half of 1 per cent, divided between the worker and his boss. The combined total will be 5 per cent. Tax on the self-employed will increase three-eighths of 1 per cent to 3¾ per cent.

More than 12 million Americans will benefit under the increase. The hike also keeps up the tradition started by Congress in 1950 of sweetening-up the benefits each election year.

In the election vein, it looks like Missouri may have had its last August primary. Several leading politicians have voiced interest in moving the primary up to the first week in May, according to John R. Hahn, a political reporter for the *St. Louis Globe-Democrat.*

Moving the primary date up would help campaigning because the summer heat hits both the candidates and the potential voters.

It also would be a money saver. Many munici-

(Continued on page 1126)

now—an antibiotic troche that

STOPS
COUGH
TOO

The *cough control* provided by homarylamine (a non-narcotic antitussive) approximates that of codeine.

Three antibiotics (bacitracin, tyrothricin, neomycin) act in combination against a wide variety of pathogens—with little danger of side reactions.

The anesthetic-analgesic effect of benzocaine brings *soothing relief* to inflamed tissues of mouth and throat.

PENTAZETS now extend the therapeutic usefulness of convenient troche medication. Each pleasant-tasting PENTAZETS troche acts promptly against the most bothersome aspects of mouth and throat irritations.

PRESCRIBE

Pentazets®

antitussive—antibiotic–anesthetic–analgesic troches

MSD **MERCK SHARP & DOHME**
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

Dosage: Three to 5 troches daily for 3 to 5 days.
Supplied: In vials of 12.
PENTAZETS is a trademark of Merck & Co., Inc.

Missouri Academy of General Practice

J. H. Trolinger, M.D.

The Tenth Annual Scientific Assembly of the Missouri Academy of General Practice will convene at Hotel Chase, St. Louis, October 18 and 19. All members of component societies of the Missouri State Medical Association as well as members of the Missouri Academy of General Practice are invited to attend. There is no registration fee.

The program, which appears on page 1114, has been carefully planned by the Committee on Education to give a valuable and practical session. The meeting is acceptable for ten hours of Category I credit for members of the Academy.

Following are the speakers for the session:

Sim F. Beam, M.D., St. Louis, Instructor in Clinical Medicine, Washington University School of Medicine.

C. Read Boles, M.D., St. Louis, Instructor of Clinical Pediatrics, Washington University School of Medicine.

Peter G. Danis, M.D., St. Louis, Professor of Clinical Pediatrics, St. Louis University School of Medicine; Chief of Staff, Cardinal Glennon Memorial Hospital for Children.

Katharine Dodd, M.D., Louisville, Distinguished Professor of Pediatrics, University of Louisville School of Medicine.

Bruce E. Douglass, M.D., Rochester, Instructor in Medicine, Graduate School, University of Minnesota; Consultant in Medicine, Mayo Clinic.

Thomas M. Durant, M.D., Philadelphia, Professor and Head of Department of Medicine, Temple University Medical School; Chairman, The American Board of Internal Medicine.

Joseph V. Finnegan, M.D., St. Louis, Associate Professor of Clinical Medicine, St. Louis University School of Medicine; Director of Student Health Service, St. Louis University.

Charles R. Gulick, M.D., St. Louis, Instructor in Obstetrics and Gynecology, Washington University School of Medicine and Barnes Hospital School of Nursing.

Joseph A. Hardy, M.D., St. Louis, Associate Professor and Director of the Department of Gynecology and Obstetrics, St. Louis University School of Medicine; Founding Fellow of the American College of Obstetrics and Gynecology.

H. Close Hesseltine, M.D., Chicago, Professor and Secretary of the Department of Obstetrics and Gynecology, University of Chicago; member of the A.M.A. Board of Trustees Committee on Professional Liability and of the Liaison Committee of the A.M.A.-A.H.A. on professional liability.

Robert L. Jackson, M.D., Columbia, Professor and Head of the Department of Pediatrics, University of Missouri School of Medicine.

Joseph A. Johnston, M.D., Detroit, Pediatrician-in-Chief, Henry Ford Hospital.

Joseph W. Kelso, M.D., Oklahoma City, Professor and Chairman of the Department of Gynecology, University of Oklahoma School of Medicine.

Cyril M. MacBryde, M.D., St. Louis, Associate Professor of Clinical Medicine and Director, Metabolism and Endocrine Clinics, Washington University School of Medicine.

William H. Masters, M.D., St. Louis, Associate Professor of Obstetrics and Gynecology, Washington University School of Medicine.

F. X. Paletta, M.D., St. Louis, Director of the Section on Plastic Surgery, St. Louis University School of Medicine.

J. S. Roden, M.D., Columbia, Associate Professor and Chairman of the Department of Obstetrics and Gynecology, University of Missouri School of Medicine.

Paul M. Seebohm, M.D., Iowa City, Associate Professor of Medicine, Director of Allergy Section, Codirector of Pulmonary Function Laboratory, State University of Iowa School of Medicine.

Morris Fishbein, M.D., Chicago, Medical Editor, Encyclopedia Britannica and Britannica Book of the Year; Consultant Medical Editor, Doubleday & Company; author of many books and contributing editor to many books and publications; formerly Editor, *Journal of the American Medical Association.*

des bactericidal action
ıst coccal infections

des successful short-term therapy
ıst endocarditis[1]

des clinical effectiveness against
tant staphylococci and enterococci[2]

', after almost a year, SPONTIN has proved
ɜ an exceptionally valuable agent for treating
ous coccal infections.

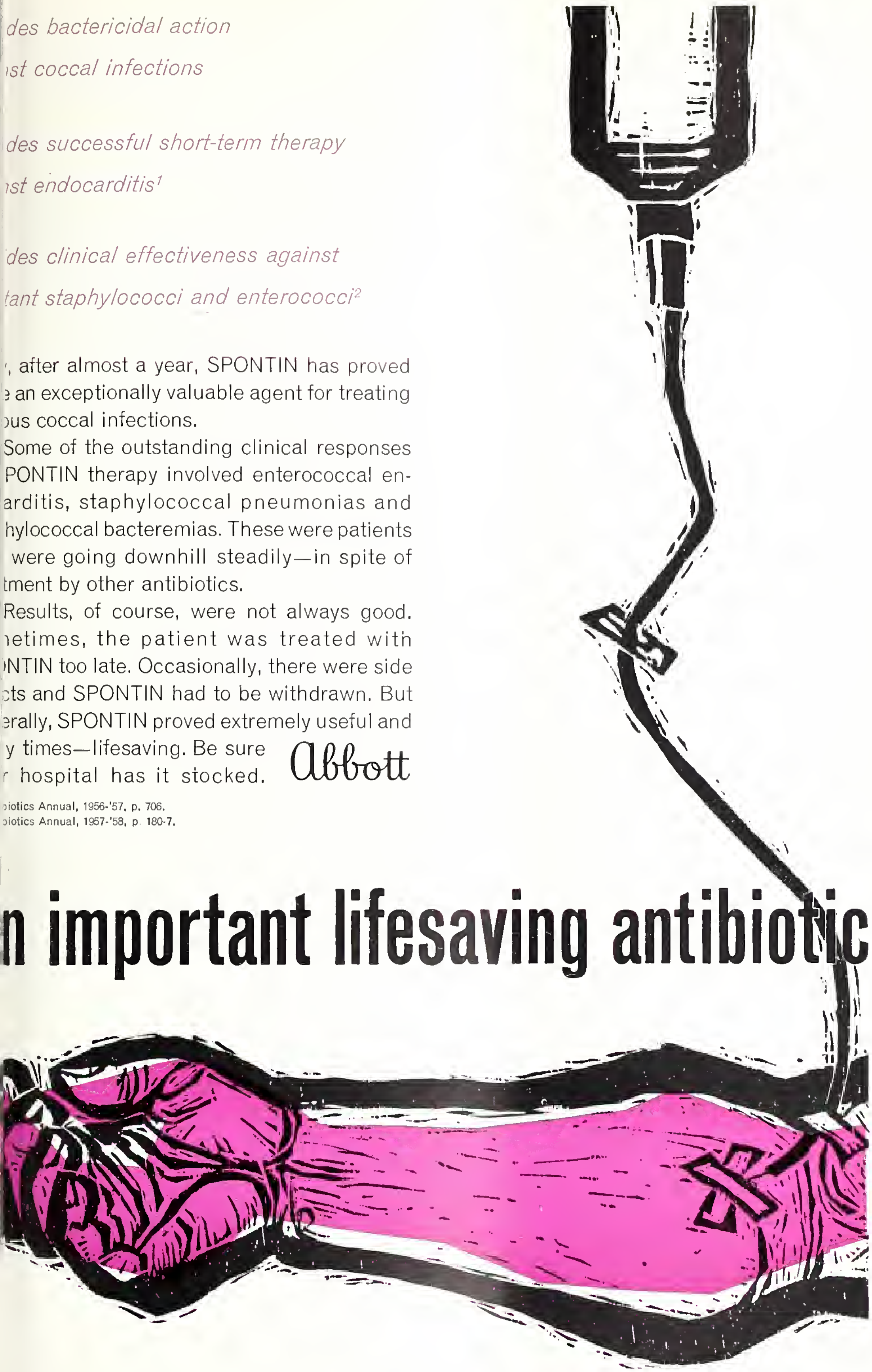
Some of the outstanding clinical responses
PONTIN therapy involved enterococcal en-
arditis, staphylococcal pneumonias and
hylococcal bacteremias. These were patients
were going downhill steadily—in spite of
tment by other antibiotics.

Results, of course, were not always good.
ıetimes, the patient was treated with
ıNTIN too late. Occasionally, there were side
cts and SPONTIN had to be withdrawn. But
ɜrally, SPONTIN proved extremely useful and
y times—lifesaving. Be sure
r hospital has it stocked.

Abbott

ɔiotics Annual, 1956-'57, p. 706.
ɔiotics Annual, 1957-'58, p. 180-7.

n important lifesaving antibiotic



Missouri Division of Health

H. M. Hardwicke, M.D., *Acting Director*

NEW PUBLIC HEALTH SERVICES FOR PHYSICIANS

About fifteen hundred deaths occur from accidental poisonings each year in the United States. Of these, one third occur in children under 5 years of age. Most of these deaths are preventable. For each death, there are approximately two hundred cases of poisoning which need medical attention.

Hundreds of new medicinal and household products have come on the market each year—new cosmetics, medicine, detergents, cleaning, polishing, and deodorizing agents, paint and solvents, fertilizers, insecticides, weed killers and others. Although most accidents are caused by familiar poisons such as petroleum products, lead, arsenic, lye, bleaches and aspirin, a substantial number of serious poisonings are caused by this ever increasing array of consumer products. There are now more than 250,000 potentially poisonous products on the market.

In this chemical age, poisoning had a part in contributing to a "new class" of diseases—accidents. In the last decade, accidents have been the chief cause of deaths for people from 1 through 34 years of age in the United States. With the discovery of the "wonder drugs," the infectious diseases lost their place as the chief cause of mortality.

CHILDREN SUFFER MOST

It is now generally recognized that accidental poisoning constitutes a serious health problem. The National Safety Council announces dramatic facts: Every day last year, an average of 4 persons died after swallowing some poisonous substance. More than one third of the victims were children under 5.

The family physician can help prevent these tragedies. He should know more about the health hazards of drugs and household, agriculture and industrial preparations. Since he no longer limits his practice to therapeutics but engages extensively in preventive medicine, the family doctor can incorporate home safety and accident prevention as an integral part of his daily practice.

It is impossible for any one person or group of persons to be acquainted with all potential poisons. Poison Information Centers have been established in different parts of the country to enable physicians to exchange information on poisoning; extensive reference material is available at these centers.

A network of such Poison Information Centers has been established in Missouri by the Division of Health in cooperation with Health and Hospital groups. The centers are:

These centers give 24 hour, around the clock, service. This involves information on poisoning from a specific substance or product in consultative information for physicians who telephone for advice. All physicians should learn the location of the Poison Information Center nearest him. Doctors can also help a great deal by prompt and complete reporting of poisoning cases to either the local health department or to the Division of Health.

These centers will offer educational services to physicians on treatment of various types of poisoning. Physicians also may receive diagnostic information in suspected poison cases. This helps assure accurate diagnosis and oftentimes prevents placing the blame on innocent but potentially poisonous substances. The information given doctors by telephone consists primarily of comments on

POISON INFORMATION CENTERS

City	*Name of Center and Street Address*	*Telephone*	*Name of Director*
Kansas City	Poison Information Center Kansas City General Hosp. No. 1 2400 Cherry	Harrison 1-8060	Beryl I. Burns, M.D.
Kansas City	Poison Information Center Mercy Hospital 1710 Independence	Grand 1-5250	Wayne Hart, M.D.
St. Louis	Poison Information Center St. Louis Children's Hosp. 500 S. Kingshighway	Forest 7-6880	J. N. Middelkamp, M.D.
Springfield	Poison Information Center St. John's Hospital 1235 East Cherokee	4-3553	Keith L. Carender, M.D.
Cape Girardeau	Poison Information Center St. Francis Hospital 825 Good Hope Street	ED 5-3375	Sister M. Cortona

ACHROCIDIN®

TETRACYCLINE-ANTIHISTAMINE-ANALGESIC COMPOUND LEDERLE

A versatile, well-balanced formula for treating common upper respiratory infections, particularly during respiratory epidemics; when bacterial complications are observed or are likely; when patient's history is positive for recurrent otitic, pulmonary, nephritic, or rheumatic involvement.

CHECKS SYMPTOMS: Includes traditional components for rapid relief of the traditional nonspecific nasopharyngitis, symptoms of malaise, chilly sensations, inconstant low-grade fever, headache, muscular pain, pharyngeal and nasal discharge.

Available on prescription only.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

TABLETS *(sugar coated)*

Each Tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottles of 24 and 100.

SYRUP *(lemon-lime flavored)*

Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 oz.

• adenitis
• sinusitis
• otitis
• bronchitis
• pneumonitis
prevents the . . . . . multifarious sequelae

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Committee on Laboratory Medicine

BLOOD CULTURES

Following the discovery of chemotherapeutic and antibiotic agents, some workers predicted bacteriologic diagnosis would no longer be necessary. Just the opposite has happened. Indeed, the isolation of specific-disease-provoking organisms is more important than ever in order to select the right therapeutic agent or combination of agents.

To make a bacteriologic diagnosis it is important to obtain cultures before antibacterial drugs have been administered. This is most important in the case of blood cultures in which the organisms come in contact with high levels of the antibiotic soon after it is given. Ideally, several cultures should be obtained before treatment is started. This is especially helpful in subacute bacterial endocarditis for in this disease the organisms are often few in number and at times may be absent. The most ideal procedure is to obtain blood for culture every hour for four or five hours before treatment is started. In some instances the condition of the patient may preclude this, but at least one blood culture should always be obtained before antibiotic therapy is given. If cultures are to be obtained after therapy has been started, the best time is probably just before the next dose of antibiotic is given. At this time the concentration of antibiotic in the blood will be lowest. The name of the antibiotic being given and the time of its administration should be included on the laboratory request slip. It was formerly held that if the patient has a spiking temperature, cultures should be obtained when the temperature is rising, but it has been shown that the yield is not sufficiently greater at that time to justify the delay.

Often the attending physician may suspect the presence of a particular organism. In such cases the laboratory request slip should indicate the organism suspected so that special cultural procedures may be done, if necessary. Such special procedures are usually performed in addition to the routine methods. Obviously it is economically impossible to do every procedure on every specimen to detect every microorganism which might be present.

There are several technics for culturing blood. Perhaps the simplest and best one is to employ one of the commercially available blood culture sets. These sets contain a bottle of sterile broth under vacuum and a sterile, disposable, plastic tubing with a needle on either end. Two specimens are usually obtained, one for anaerobic and the other for aerobic cultivation. The directions of the manufacturer must be followed exactly to obtain uniform results.

The blood must be obtained under as nearly aseptic conditions as possible. A large, readily accessible vein in the antecubital area is selected. The skin should be thoroughly cleansed over a large area with soap and water on a gauze sponge, rinsed well, and sponged with alcohol or acetone to speed drying. Next, a weak tincture of iodine on a cotton swab is applied to the skin area. The swab is placed over the approximate site of puncture and the iodine is then applied in a gradually widening spiral. After drying, the iodine is removed with a swab moistened with 70 per cent ethyl alcohol or 90 to 99 per cent isopropyl alcohol using the same spiral motion. The alcohol must be allowed to dry. The needle is then inserted in the vein without touching the sterilized area with the fingers and the blood is withdrawn into the previously warmed (37 C.) broth. The cultures should be taken to the laboratory as quickly as possible. If a delay of more than a few minutes is necessary, some means of keeping the bottles at 37 C. must be employed as some organisms are extremely sensitive to changes in temperature.

The rapidity with which various organisms will appear in culture varies considerably. Organisms which ordinarily grow rapidly may have been so inhibited by antibiotic therapy that growth is delayed for several days. Cultures should be studied for at least three weeks before reporting negative results. Isolation of an organism from a single specimen does not necessarily mean that that organism is responsible for the patient's illness. The presence of the same organism in several cultures obtained at different times, however, is much stronger evidence of its etiology in producing the patient's disease.

Poisons (Continued)

the type and effect of the toxic substance contained in the product swallowed, and therapeutic suggestions. This information is strictly advisory or consultative and the final responsibility for accepting, modifying, or rejecting the advice remains with the physician treating the patient.

Another primary objective of the centers is research in treating poisoning from the more common and dangerous chemicals. This includes making the initial treatment, or first aid measure, more prompt and effective.

The physician who must treat known or suspected cases of poisoning cannot be expected to keep abreast of all the developments in the field of synthetic chemistry and toxicology. And time is often short. With two hundred and fifty thousand poisonous products available now and new ones coming into consumers circulation, the job of getting information on all these potential poisons is Gargantuan. This is one of the functions of the Poison Information Centers. In many cases, manufacturers must be contacted; other information comes from secondary research. The centers will collect and classify this information. Composition and treatment are listed under the trade name and type of product.

Missouri centers will receive bulletins from master poison centers discussing all phases of poisoning, and also suggesting reference material. This is a consultative service to the Poison Information program and it supplies, codes and tabulates poison report forms for some of the local centers. It also is responsible for stimulating research in the field of poisoning. Studies are made of national and regional trends in poisoning and of successful methods of preventing and treating such cases.

tension

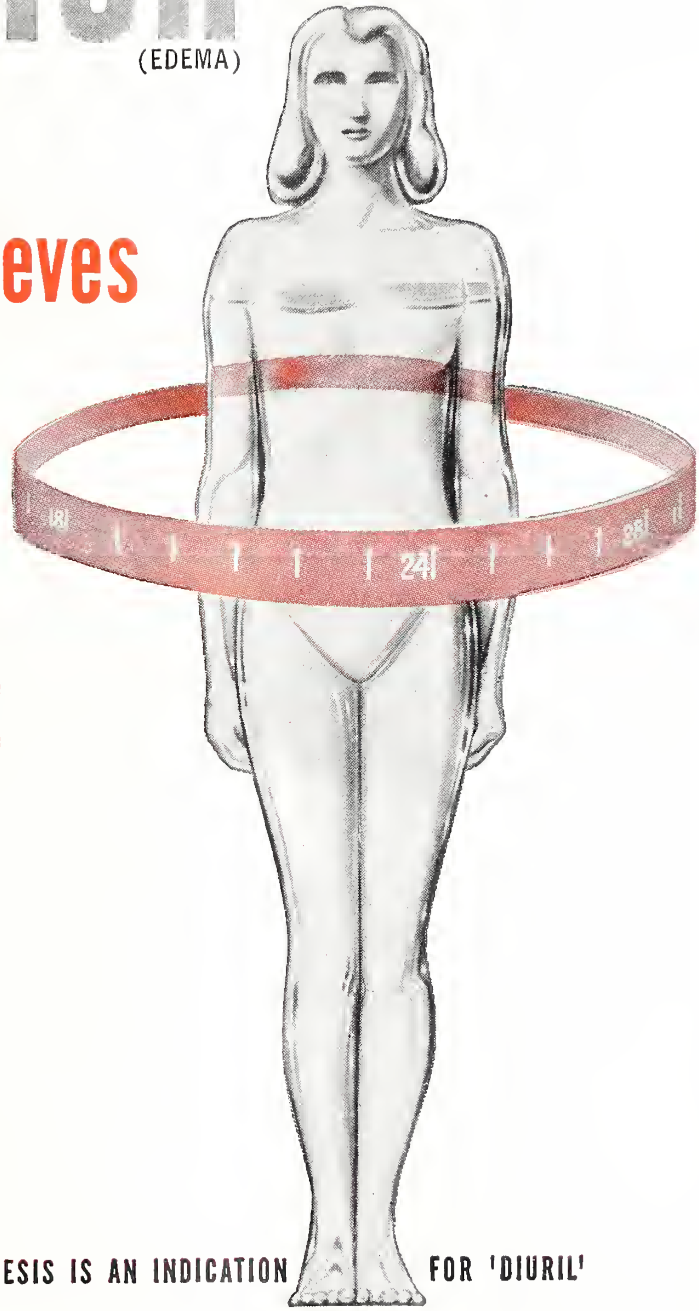
(EDEMA)

quickly relieves

Distress

Distention

Discomfort



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR 'DIURIL'

Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

When I look at the work of the Medical Auxiliary I sometimes think it resembles an octopus. As the tentacles of the octopus reach in many directions so must the objectives of the Auxiliary be projected into other organizations and groups. The value of the work lies in the way we project the truths we learn into other organizations. The basis of our work is keeping a finger on the pulse of our communities' thinking. We come together to be correctly informed and often inspired and go to other groups and help them plan authentic health programs of all types. When we are together we learn where we can obtain the best in literature that tells a true story—where we can obtain helps and aids for other groups. So often a small organization which feels itself not too active can be doing an effective piece of work in its community.

One of the finest tentacles of projection into the public life and eye in which our Auxiliary participates is the exhibit at the State Fair. As I write this it is open and great crowds of people are seeing a Medical Auxiliary service to the public. Mrs. Stewart tells me that our Council on Health Careers booth is located with other "medical" booths such as American Cancer Society, State Dental Association and several others. Thomas Walsh, cochairman, arranged for different groups daily to "man" the booth. Participating are R.N.s, L.P.N.s, Student Nurses of Kansas City, Springfield and Jefferson City, Physical Therapists, Occupational Therapists, X-ray Technicians, Dieticians, Medical Technologists and Social workers. Mrs. Stewart, as local resident, was the only Doctor's wife involved. Her work consisted in getting people to the booth, checking it three times a day and explaining duties to those coming to work for the first time. Close to 50,000, and occasionally more, people attend the State Fair on the busiest days.

Did you know that if every Doctor's office had a copy of *Today's Health* on its reception room table there would be 82,000 copies for the public to see? So National has the slogan this year of the three R's—Reception Room Readership. The stress is to put the magazine where it will do the most good. The people sitting in the doctor's reception rooms are already interested and curious in health problems and solutions. It is rather amazing to "tune-in" on people's conversations while riding a bus or a train and see how constantly health is discussed and often how misinformed the people are. Particularly is this true among the older people. So we are doing a public service if we can give people correct instead of confusing facts. Our state does a fine job in this type of projecting our views into the life of the public. We were again one of the honored states at the national meeting. Missouri had 105 per cent as a state with 17 of her counties being on the "honor roll." Two counties—Jefferson and Johnson—were money winners in their groups this year.

"There are several kinds of members," Mrs. Curtis, President of S.M.A. Auxiliary, told us. There are the tired—retired—tiresome—and tireless. It is the tireless kind we are wanting—the kind of people who forget themselves to do the things that are remembered. A few years back Mrs. H. E. Peterson of Buchanan County made a survey of the activities of the doctors' wives in that group in relation to their work in other organizations. She found that the ladies of that one Auxiliary held important positions in 60 some other civic organizations. This is public relations. And truly doctors' wives over the nation carry a heavy load in community service. What we conclude that we want to have is a year of A-C-T-I-O-N. A year of ACTION in A.M.E.F., in Community service and Communications, in *Today's Health;* in Individual service and responsibility, in Other organizations, Now.

Action is our program but communications is one important part, for no matter how outstanding the activity if we cannot get our story across our activity has failed. You will remember the story of the blind men who were "seeing" the elephant with their hands. One felt his side and said "He is like a wall." Another felt the tusk and said "He is like a spear." Another felt the squirming trunk and said "No, he is like the snake." The fourth felt the knee and said "He is like a great tree." The fifth felt the ear and said "He is like a fan," and the sixth felt the tail and said "He is like a rope." And so it is with the Auxiliary program. All the knowledge and thought that we wish to give to someone else will be interpreted in the light of what they are, what they have been taught, and the circumstances and things surrounding them at the time. It requires understanding and tolerance so that we may say, I may not approve of what you believe, but will always defend your right to believe it.

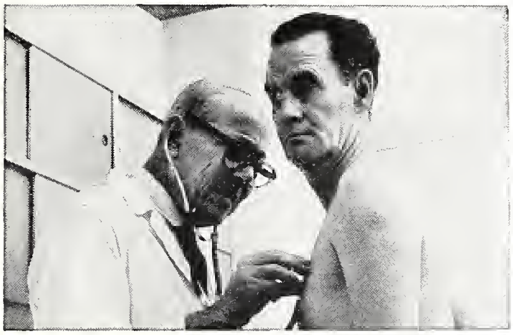
And so as the tentacles reach in all directions, it must be with kindness and love, with understanding and patience.

Pyribenzamine® EXPECTORANT breaks up cough

even persistent cough

Patient, factory worker, age 43, had suffered for months with persistent, dry cough, which he termed "smoker's hack."

Cough frequently interrupted his sleep, causing him to be nervous, irritable; his job efficiency was impaired.



Chest X-ray was negative and the plant physician prescribed PYRIBENZAMINE EXPECTORANT with Ephedrine. Patient noticed almost immediate relief—a week later felt "considerably better."

Pyribenzamine Expectorant with Ephedrine provides a unique combination of antitussive agents, which work three ways at once to break up the persistent cough: *Pyribenzamine* relieves histamine-induced congestion throughout the respiratory tract; *ephedrine* relaxes the bronchioles and makes breathing easier; *ammonium chloride* liquefies mucus, relieving dry cough and promoting productive expectoration.

Supplied: Pyribenzamine *Expectorant with Ephedrine,* containing 30 mg. Pyribenzamine citrate (equivalent to 20 mg. Pyribenzamine hydrochloride), 10 mg. ephedrine sulfate and 80 mg. ammonium chloride per 4-ml. teaspoon.

Also available: Pyribenzamine *Expectorant·with Codeine and Ephedrine,* same formula as above with the addition of 8 mg. codeine phosphate per 4-ml. teaspoon (exempt narcotic).

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

Captain M. L. Peters, of Cameron, now a member of the Medical Reserve Corps in training at Fort Riley, is wearing a handsome gold wrist watch presented to him by admiring friends and patients at home as a memento of their esteem.

Dr. W. S. Gale of Osborn was painfully injured, August 28, when an automobile collided with his car at Maysville where he had gone to attend a chautauqua meeting. Dr. Gale was thrown against the steering wheel in the collision and was rendered unconscious for several hours. He escaped with a severe shaking up and superficial bruises.

Dr. S. V. Bedford, Jefferson City, Councilor of the 19th Division, has received a commission as captain in the Medical Corps of the Army and reported for duty at Camp Custer, Michigan. Captain Bedford was tendered a complimentary dinner by the physicians in Jefferson City on August 20 and presented with a handsome wrist watch.

Lieutenant H. S. Crawford, Harrisonville, has been promoted to Captain. He is now regimental surgeon of the 57th Field Artillery, Camp Bowie, Texas. Captain Crawford was Councilor of the 15th District, and during his absence Dr. L. J. Schofield is acting councilor. Captain Crawford writes that there has been little sickness in his regiment.

The fall meeting of the Southwest Missouri Medical Society at Hollister on the White River will be held on October 17-18. The beautiful Taneycomo Club has been promised as a meeting place. This was the Maine Building at the St. Louis World's Fair and will accommodate everyone present.

Two Navy base hospital units are being recruited in St. Louis, one of them in charge of Dr. L. C. McAmis, director, with the rank of lieutenant-commander. The other members of the staff are Dr. J. C. Salter, internist, lieutenant-commander; Dr. Sherwood Moore, roentgenologist, past assistant surgeon; Richard C. Smith, Superior, Wis., eye, ear, nose and throat specialist, past assistant surgeon. Fifteen nurses will be attached to the unit in charge of Miss Grace Lieurance, head nurse. The other unit is being recruited by Dr. R. B. H. Gradwohl, director with the rank of lieutenant-commander. The others on the staff are Dr. E. H. Johnson, chief surgeon, with the rank of lieutenant-commander; Dr. E. P. North, oculist, past assistant surgeon, and Dr. Gray Briggs, past assistant surgeon; Dr. Tom Taylor, chief of the laboratory service, past assistant surgeon. Fifteen nurses will be attached to the unit in charge of Miss Genevieve Thorpe, head nurse.

The Carter-Shannon County Medical Society met in the offices of Dr. Alexander Johnston at Winona, August 26, and after listening to an interesting report of surgical cases (gallstones and goiter) with specimens, by Dr. W. G. Parker of West Eminence, the following business was transacted: Dr. William Garfield Parker and Dr. Lafayette Leonard Henson were elected to membership. It was ordered that the dues be increased sufficiently to provide necessary funds to pay the annual dues of all members called to government service during the war, without expense to them.

TWENTY-FIVE YEARS AGO

The University of Missouri is to be congratulated upon her new dean of the school of medicine and director of University Hospitals. With the resignation of Dean Edgar Allen in May to accept an appointment at Yale, Dr. Dudley S. Conley was wisely chosen by the Board of Curators of the University to occupy this important position.

Dr. E. E. Sexton, St. Louis, sailed August 31 for Bremen, Germany. He will spend several months in the urological clinics at Berlin.

Dr. Timothy S. Bourke, Kansas City, was appointed a member of the State Board of Health, August 16, for a term of four years. He succeeds Dr. H. S. Gove, Linn, who resigned to accept the appointment as chief assistant to Dr. E. T. McGaugh, State Health Commissioner.

A grant of $58,500 has been given Washington University School of Medicine by the Rockefeller Foundation for the study of the physiology of the nervous system.

The Federal Hospital for Defective Delinquents, Springfield, which will be known as the medical center of the Department of Justice, has been completed at a cost of $2,500,000. Springfield physicians appointed as local consultants are: Dr. H. A. Lowe, surgery; Dr. G. B. Lemmon, internal medicine; Dr. Paul F. Cole, roentgenology; Dr. W. C. Cheek, ophthalmology, and Dr. Robert Vinyard, urology.

The Association of Assistant Physicians of Missouri met at the State Hospital at Fulton, Sep-

(Continued on page 1138)

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 October, 1958 Number 10

The Effect of Aminophylline On the Emphysematous Patient

HERBERT C. SWEET, M.D., BURNET W. PEDEN, M.D., WILLIAM F. KISTNER, M.D., and
J. GERARD MUDD, M.D., *St. Louis*

The relief of the bronchospastic element in pulmonary emphysema is of major importance in the therapy of this disease. For this reason, pulmonary and hemodynamic studies have been carried out to determine the effect of aminophylline on the emphysematous patient.

Pulmonary function measurements consisted of vital capacity, maximum breathing capacity, residual air and total lung volume. The hemodynamic studies consisted of right heart catheterization for determination of pressures, the cardiac output, pulmonary resistances, and the effect of exercise on these basal physiologic determinations.

MATERIAL AND METHODS

Vital capacity and maximum breathing capacity determinations were carried out with the Collins nine liter respirometer by the method described by E. de F. Baldwin.[1] The vital capacity measurements represent the sum of the inspiratory and expiratory capacities rather than the single determination of the volume of air taken from a forced inspiration to a forced expiration. The functional residual air was determined by the open circuit method of Darling.[2] The total lung volume is the sum of this functional residual air added to the inspiratory capacity. The residual air was determined by subtracting the vital capacity from the total lung volume.

The cardiac catheterization studies were carried out by the usual methods. Pressures were recorded through Statham strain guages on to photographic paper. Blood samples were obained in heparinized syringes, and determination for O_2 and CO_2 were made by the usual method of Van Slyke.[3] Oxygen consumption was calculated by obtaining the expired air in Douglas bags, running it through a Tissot Spirometer for volume, and the O_2 and CO_2 was determined on the Sholander machine.

RESULTS

Eight patients with moderately severe to severe pulmonary emphysema were studied with basic lung function tests over a period of one year. This data is shown in table I.

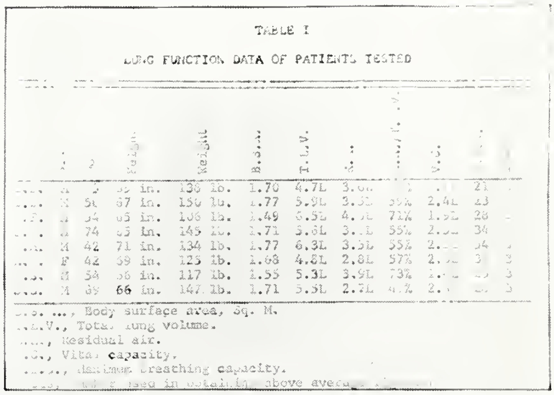


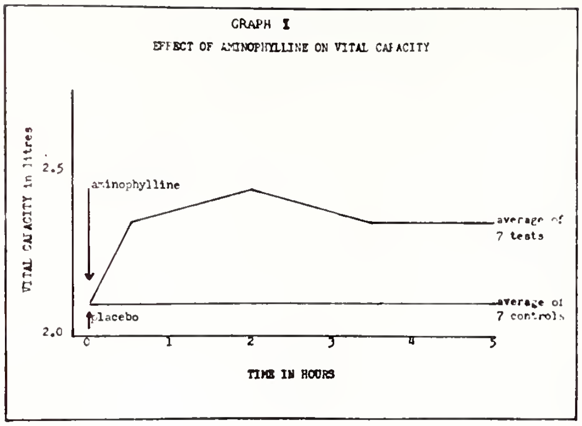
TABLE I

LUNG FUNCTION DATA OF PATIENTS TESTED

[illegible]	[illegible]	[illegible]	Height	Weight	B.S.A.	T.L.V.	[illegible]	[illegible]	V.C.	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible] in.	138 lb.	1.70	4.7L	[illegible]	[illegible]	[illegible]	21	[illegible]
[illegible]	M	[illegible]	67 in.	[illegible] lb.	1.77	5.9L	[illegible]	[illegible]	2.4L	23	
[illegible]	[illegible]	[illegible]	[illegible] in.	106 lb.	1.49	6.5L	[illegible]	71%	[illegible]	28	[illegible]
[illegible]	[illegible]	74	[illegible] in.	145 lb.	1.71	5.6L	[illegible]	55%	[illegible]	34	
[illegible]	M	42	71 in.	134 lb.	1.77	6.3L	3.5L	55%	[illegible]	[illegible]	[illegible]
[illegible]	F	42	59 in.	123 lb.	1.68	4.8L	2.8L	57%	[illegible]	[illegible]	3
[illegible]	M	54	[illegible] in.	117 lb.	1.55	5.3L	3.9L	73%	[illegible]	[illegible]	3
[illegible]	M	39	66 in.	147 lb.	1.71	5.5L	2.7L	[illegible]	[illegible]	[illegible]	[illegible]

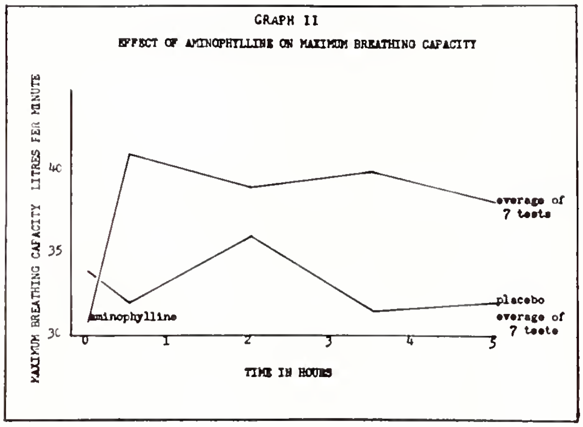
B.S.A., Body surface area, Sq. M.
T.L.V., Total lung volume.
R.A., Residual air.
V.C., Vital capacity.
M.B.C., Maximum breathing capacity.
[illegible] used in obtaining above average [illegible]

The effect of 0.5 grams of aminophylline on pulmonary function tests over a five hour period was determined prior to right heart catheterization. Placebo injection of 20 cc. of saline intravenously in the same manner as the aminophylline was studied on another day. These results are tabulated in Graphs I and II. Graph I shows the average results of these studies on the vital capacity



GRAPH I

EFFECT OF AMINOPHYLLINE ON VITAL CAPACITY



GRAPH II

EFFECT OF AMINOPHYLLINE ON MAXIMUM BREATHING CAPACITY

both with aminophylline and with placebo, and Graph II compares the average effect on maximum breathing capacity. As can be seen by these graphs placebo administration creates no essential change in either maximum breathing capacity or vital capacity. With aminophylline, however, there is a rise in vital capacity in the first half hour with a peak effect at two hours; following this it falls slightly, but remains elevated for the entire five hour period. The maximum breathing capacity reaches a peak in thirty minutes and remains elevated throughout the five hour period.

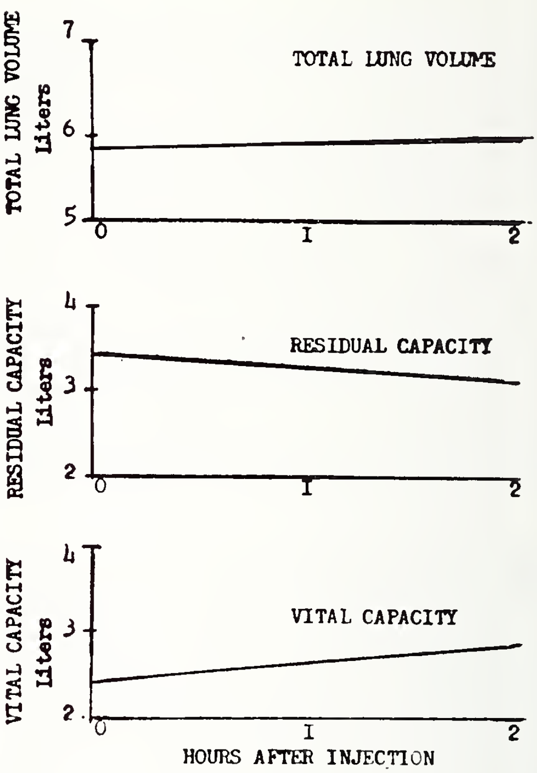
Total lung volume and residual air percentages were determined in five of the patients before and two hours after aminophylline was given. The results are shown in Graph III. No constant effect is produced in the total lung volume but the residual capacity tends to decrease as the vital capacity rises.

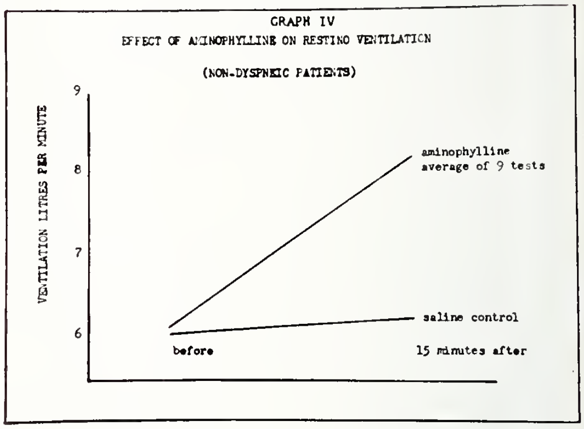
The effect of aminophylline on resting ventilation of non-dyspneic patients is shown in Graph IV. Fifteen minutes after intravenous saline there is no appreciable change in the resting ventilation, but after intravenous aminophylline there is a definite increase.

The tidal volume at rest increases significantly after the administration of aminophylline, while

GRAPH III

EFFECT OF AMINOPHYLLINE ON TOTAL LUNG VOLUME AND RESIDUAL CAPACITY





GRAPH IV

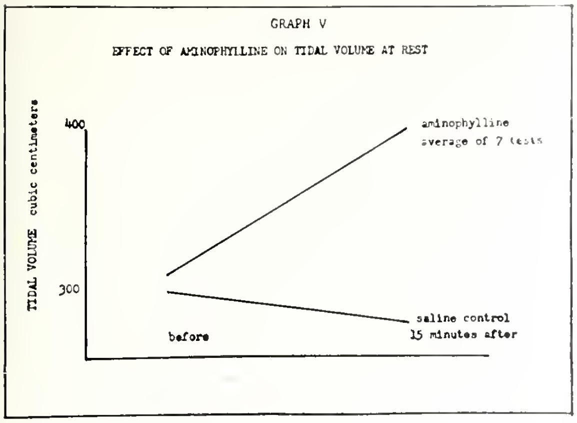
EFFECT OF AMINOPHYLLINE ON RESTING VENTILATION

(NON-DYSPNEIC PATIENTS)

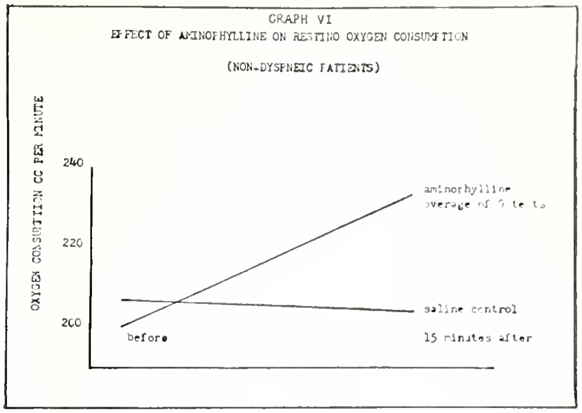
after saline there is no significant change (Graph V).

The effect of aminophylline on resting oxygen consumption in non-dyspneic patients is shown in Graph VI. Fifteen minutes after intravenous saline there is no change in resting oxygen consumption, but after aminophylline resting oxygen consumption increases.

A second type of study was carried out on two of these patients. In this the minute volume of


GRAPH V

EFFECT OF AMINOPHYLLINE ON TIDAL VOLUME AT REST


GRAPH VI

EFFECT OF AMINOPHYLLINE ON RESTING OXYGEN CONSUMPTION

(NON-DYSPNEIC PATIENTS)

respiration, respiratory rate, oxygen consumption and carbon-dioxide production were determined under basal conditions for a period of 30 minutes prior to the administration of intravenous aminophylline and for a period of time afterward sufficient to allow the patient to return to the premedication level. Arterial blood oxygen and carbon-dioxide levels were determined during the experiment. The results are shown in Graph VII. Aminophylline produces a considerable increase in the minute volume of respiration without much change in the respiratory rate. The tidal volume of respiration is increased, oxygen consumption and carbon-dioxide production are increased, there being a tendency for carbon-dioxide production to increase slightly more than does the oxygen consumption so that the respiratory quotient is elevated. Blood oxygen content rises and blood CO_2 content falls.

In one patient who was dyspneic at rest at the time that aminophylline was given a different kind of response was obtained. This is shown in Graph VIII. In this patient the consumption of oxygen and the ventilatory rate decreased, and the patient's dyspnea lessened. In this patient the arterial blood O_2 content was increased and the arterial blood CO_2 decreased.

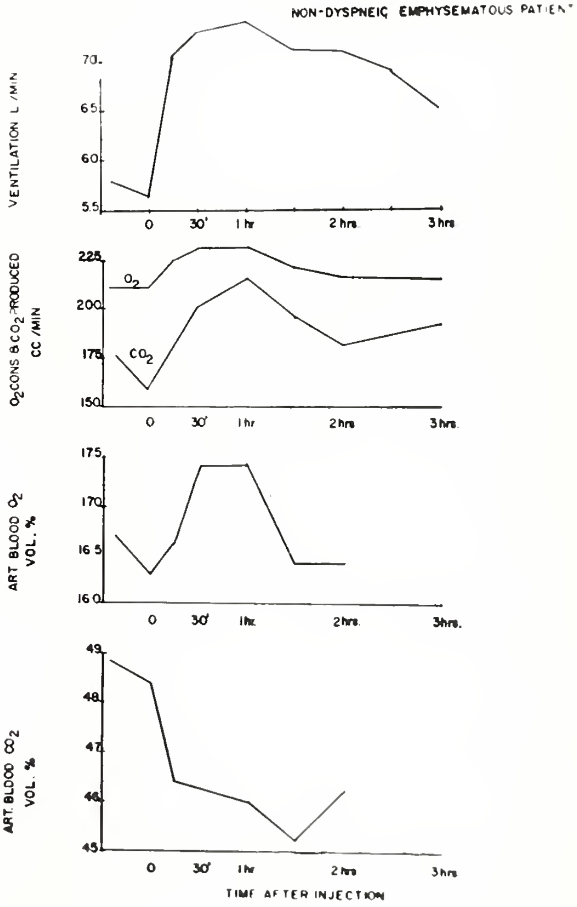
The resting pulse rate increases markedly immediately after aminophylline and maintains this increase for at least 15 to 20 minutes, while after saline there is no definite change (Graph IX).

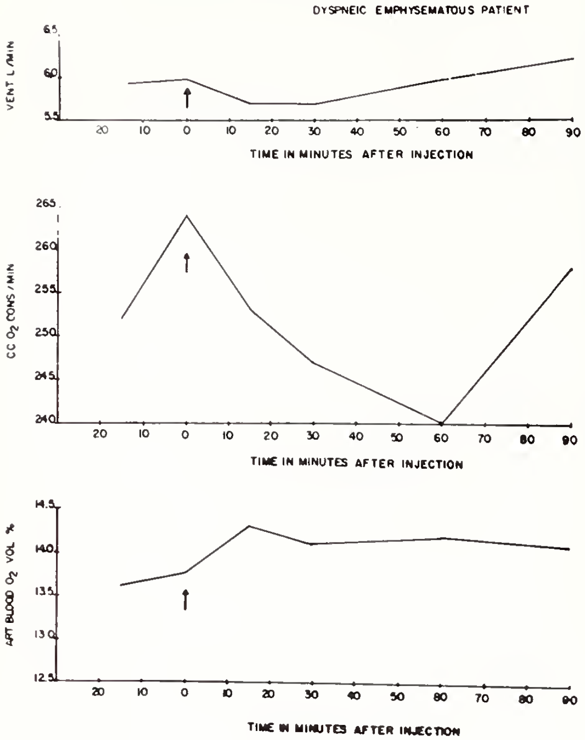
The effect of aminophylline on pulmonary artery pressure is shown in Graph X. After intravenous aminophylline there is a consistent decrease in pulmonary pressure at both rest and exercise. After saline there is an increase in pressure at rest and no change in pressure with exercise.

In another experiment the usual cardiac catheterization technic was used. The cardiac output was determined before and after aminophylline administration. One of the patients was used as a control on the method, the cardiac output being determined twice before and twice after the administration of aminophylline. The second patient was used as a control of the drug; intravenous saline being used in place of aminophylline. The remaining patients were subjected to mild exercise before and after the administration of aminophylline. The exercise consisted of raising both legs thirty times a minute against a weight of twenty-

GRAPH VII

RESPONSE TO AMINOPHYLLINE



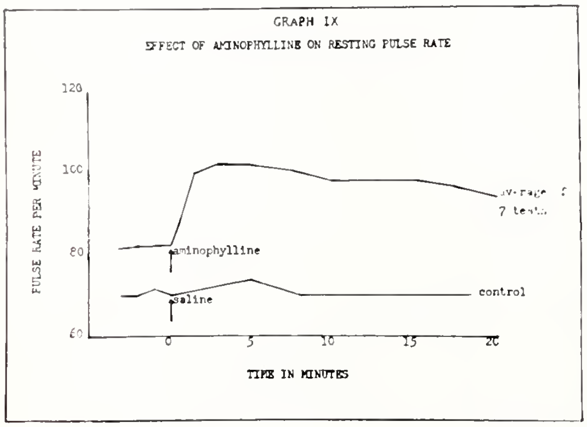

GRAPH VIII

RESPONSE TO AMINOPHYLLINE

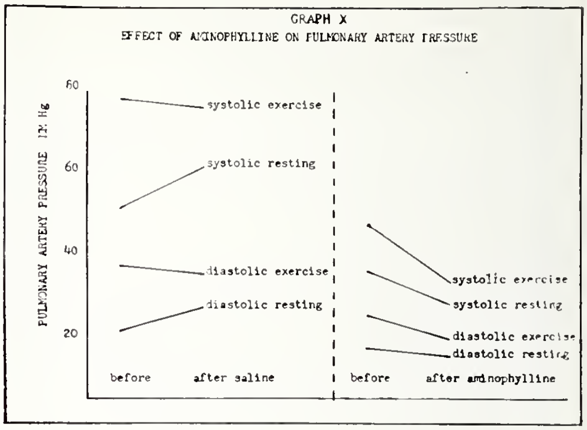
four pounds attached to a bicycle pulley mechanism. The exercise was carried out for five minutes and the cardiac output determined between the third to fifth minute of exercise.

The pulmonary artery pressure in the normal individual (Graph XI) varies little with the respiratory cycle at rest, and shows only slight variation during exercise.

The emphysematous individual shows a marked variation in pressure with each phase of respiration, the pulmonary artery pressure rising to high levels at the beginning of expiration and falling to almost normal levels during the first phase of inspiration. This effect is markedly enhanced by exercise as is shown in Graph XII.


GRAPH IX

EFFECT OF AMINOPHYLLINE ON RESTING PULSE RATE

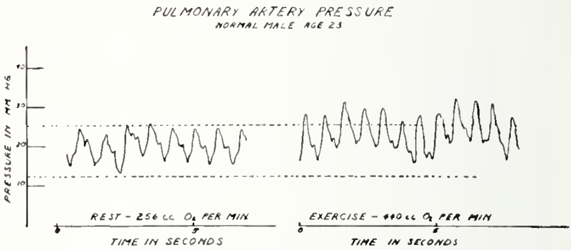

GRAPH X

EFFECT OF AMINOPHYLLINE ON PULMONARY ARTERY PRESSURE

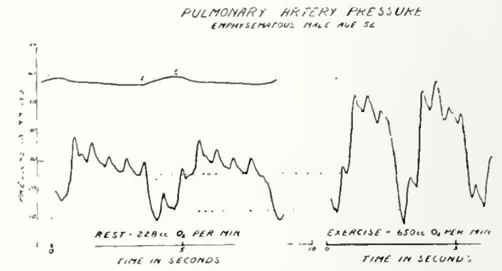
DISCUSSION

The results described may all be explained on the bronchodilator effect of this drug. The increase in vital capacity, maximum breathing capacity and decrease in residual air may be due to the increased caliber of the bronchioles, and this lessening of the Valsalva-like effect of respiration results in the decrease in pulmonary artery pressure.

GRAPH XI



GRAPH XII



Riley[4] has discussed the increased work of breathing in the emphysematous patient who is dyspneic. The increased work of the respiratory muscles needed to force air through a small bronchial opening results in an increased consumption of oxygen. This increased work is lessened in the dyspneic patient by administration of aminophylline.

The increase in ventilation and O_2 consumption in the nondyspneic emphysematous patient may mean that there is stimulation of the respiratory center itself as well as a bronchodilating effect.

SUMMARY AND CONCLUSIONS

In the emphysema patient, aminophylline causes:

1. An increase in vital capacity and maximum breathing capacity which lasts for three to five hours.
2. An increase in the minute volume of respiration with a resultant increase in O_2 content of the blood and a decrease in the CO_2 content of the blood.
3. A decrease in pulmonary artery pressure, most marked during the phase of expiration.
4. A lessened cardiac output and an increase in ventilatory rate both at rest and during exercise.
5. In the dyspneic emphysematous patient, the work of breathing may be decreased enough so that the O_2 consumption and minute volume of respiration at rest are decreased.

1325 S. Grand Ave.

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HOW TO HANDLE "HOT" BODIES

The proper way to handle bodies containing radioactive isotopes is treated in a new handbook of the Department of Commerce.

The 20-page handbook is designed for the guidance of mortuary and medical personnel in the handling and autopsy of bodies containing radioactive materials.

Copies cost 15 cents and may be obtained from the Department of Commerce Field Office, Room 910, New Federal Building, 1114 Market Street, St. Louis 1, Mo. The full title is "Safe Handling of Bodies Containing Radioactive Isotopes."

HEALTH LEADERS TO DISCUSS RADIATION

Radiation hazards and how to cope with them will be discussed at the 86th annual meeting of the American Public Health Association October 27-31 in St. Louis.

More than 4,000 health authorities from America and other parts of the world are expected to attend. More than 40 related organizations also are scheduling sessions during the same week. The headquarters hotel will be the Sheraton-Jefferson Hotel.

Local arrangements are being handled by Dr. J. Earl Smith, St. Louis health commissioner.

The APHA is the largest American professional organization of public health specialists. Each of the association's 14 specialized sections has scheduled discussions. They include: dental health, engineering and sanitation, epidemiology, food and nutrition, mental health, occupational health, and public health education and nursing.

LYSENKO'S THEORY BACK IN FAVOR

Lysenko's theories appear to have official backing again in Russia, judging from last minute calcellations by Russian experts on plant and animal heredity at the 10th International Congress of Genetics.

At the recent meeting in Montreal, the program chairman said all the canceled talks seemed to have disagreed in some manner with the theories of Prof. Trofim D. Lysenko.

Lysenko was a favorite of Stalin who laid down the law in genetics under the Stalin dictator. He contends that characteristics acquired because of environment can be passed on through inheritance, a theory generally discredited in the West and disputed by some Soviet scientists.

For several years after Stalin's death in 1953, Lysenko was in disgrace. But last year application of some of his ideas to agriculture appeared to be finding favor with Premier Khrushchev.

FARMER NARROWS HEALTH GAP

The American farmer is rapidly catching up to the city dweller in the amount of money he spends to protect his health, according to the Health Insurance Institute.

The institute said that in 1941 farm families spent an average of $15 a person for medical care, less than half the $32 spent for members of urban families. But in 1955, the individual spending level for farmers was $63, or nearly 80 per cent of the estimated $81 spent by the city dweller.

The information, assembled by a joint survey of the Department of Agriculture and the Bureau of Census, also indicated that the average farm family is investing more money in voluntary health insurance to help protect itself against the cost of medical care.

The typical farm family spent $3 in 1941 for health insurance and $42 in 1955. While the 1955 expenditure was the equivalent of what $13 would have bought in 1941, it still represented an increase of 333 per cent.

The survey showed about 51 per cent of the farm families had some form of health insurance in 1955. It also revealed that as farm incomes increase, more families protect themselves. The protection figures ranged from 27 per cent of those families earning between $500 and $1,000 annually to 69 per cent of those earning $7,500 and over annually.

Pancreatitis

J. NED SMITH, M.D., *Columbia*

DURING THE LAST 12 years there has been an increasing interest in pancreatitis. Careful considerations of the anatomy of the pancreas, and of the etiology, clinical expression and therapy of pancreatitis have been presented.[1-6] In addition, in the last few years, there has been a surgical trend toward a more direct approach upon the pancreas in an effort to relieve the patient with chronic pancreatitis of chronic pain.[7-11] The purpose of this paper is to review some of the theoretical and practical points of importance in thinking about this illness.

EMBRYOLOGY AND ANATOMY

The discussion of pancreatitis logically should begin with the embryology of the pancreas so that one may better understand the various relationship of the pancreatic ducts. In embryos of three to four mm. the ducts of the pancreas arise as two out-pouchings of the endoderm of the duodenal wall. One bud grows from the dorsal aspect of the duodenum and this dorsal mesoduodenum becomes the rudiment of the accessory pancreatic duct of Santorini and the neck, body and tail of the pancreas. From the anterior duodenum, and at a lower level, the ventral bud forms which becomes the rudiment of the bile ducts, liver, main pancreatic duct and the head of the pancreas. At approximately the seventh week of fetal life, the head of the pancreas swings around behind the junction of the splenic, superior mesenteric and portal veins so that these vessels occupy a position between the dorsal and ventral buds, much as a book might close on a bookmark. A number of variants arise from the embryology just described.

In approximately 10 per cent of individuals, the two lobes of the pancreas do not completely unite. There is partial or complete atrophy of the ventral bud. In this situation the dorsal bud becomes essentially the complete, active pancreas with the pancreatic fluid flowing from the accessory duct or the "duct of Santorini" and into the accessory papilla instead of flowing into the ampulla of Vater. In 30 per cent of individuals, there is a more complete union so that the pancreatic juice flowing from the body and tail of the pancreas goes into the ventral bud or the head of the pancreas, into the duct of Wirsung, and out into the ampulla of Vater. In this 30 per cent there is no additional drainage through the accessory duct so that once again there is only one pathway for the pancreatic juice to take. In 60 per cent of individuals there is an even more advanced relationship of the ducts so that the pancreatic fluid in essence usually flows from the tail and the body of the pancreas through the duct of Wirsung into the ampulla; however, at least theoretically, if the ampulla and the duct of Wirsung were obstructed, it could pass through the ductal system of the accessory duct and out the accessory papilla. Therefore, in probably 60 per cent of individuals, there is a decompressing mechanism present in the pancreatic system which should prevent an excessive intraductal pressure following obstruction of the main pancreatic duct. This data would tend to explain why pancreatic is not more common in instances of biliary colic.

The common bile duct traverses the head of the pancreas and enters the duodenum at the papilla of Vater or through the sphincter of Oddi. As mentioned, the dilated distal portion of the bile duct known as the ampulla of Vater is joined by the main pancreatic duct in 90 per cent of individuals. The septum between the bile and pancreatic ducts in the ampulla is short enough in about 60 per cent of the specimen to allow the so-called "common channel." Here there is mixing of bile and pancreatic juice, and theoretically with pressure changes, bile can flow into the pancreatic duct and pancreatic enzymes into the proximal common bile duct. The irritation of bile salts in the pancreatic duct is believed to induce metaplasia and piling up of the epithelium and eventually obstruction. However, as noted, the pancreas should allow, in most instances, decompression of increased pressure of the distal gland left by flow through the accessory pancreatic duct.

INNERVATION AND PHYSIOLOGY

Innervation of the pancreas occurs primarily by the fibers of the vagal nerves. These come into intimate association with the acini and islet cells of Langerhans in the pancreas. The sympathetic nerves end at the arterioles and their action is limited to a constriction of the vessels. Stimulation of the vagal nerves, however, produces an increased secretion of the enzymes amylase, lipase and trypsin by the pancreas.

The pancreas also increases secretion of amylase, lipase and trypsin after stimulation by the hormone pancreazymin coming from the mucosa of the upper intestine. Pancreazymin is secreted when the amino acids, fat products and gastric-acid come into the upper intestine. Secretin, a hormone secreted by the mucosa of the duodenum, is also important in pancreatic physiology. The duodenal mucosa is stimulated primarily by gastric acid and this hormone, carried to the pancreas by the blood stream, stimulates an increased secretion of bicarbonate and water from the small pancreatic ducts.

PATHOLOGY

Pathologically a separation of pancreatitis into the acute and chronic varieties has been traditional. The acute pancreatitis infers at least edema, inflammatory exudate and necrosis of the acinar cells. In addition, if the process is fulminating, there may be fat necrosis and hemorrhage. The microscopic and gross picture of fat necrosis infers an inflammatory reaction and the breaking down of neutral fat by lipase from the pancreas to fatty acid crystals; many of these crystals then combine with calcium from the tissues and from the blood to form calcium soaps. Hemorrhage occurs when trypsin and chymotrypsin are activated from their precursors and erode small and large blood vessels. In chronic disease of the pancreas a dilatation of the large and small ducts develops. The induration in the head of the pancreas also commonly compresses the common bile duct. Cystic areas develop within the pancreas as a result of the loss of acini. In addition, there may be formed, from the combination of acute and chronic pancreatitis, true cysts which are lined with epithelium and joined with one of the pancreatic ducts. Pseudocysts, which are usually believed not to have an epithelium, are formed as a reaction of the enzymes outside the pancreas, and the effort of the adjacent structures to wall off the enzymes.

CLINICAL PANCREATITIS

Clinically, the separation of pancreatitis into acute and chronic forms is somewhat artificial, since it is best thought of as a continuum with multiple possibilities. In acute pancreatitis at least 50 per cent of the cases will have additional pancreatic problems or chronic pancreatitis. In addition, if one takes a careful history from a patient with so-called acute pancreatitis, one will frequently discover that the patient has had previous abdominal pain suggestive of a previous pancreatic problem. The fulminating hemorrhagic pancreatitis is the most acute manifestation of a broad continuum. Many of these patients will die but those that do survive will have additional difficulty.

Moving along this continuum to less fulminating attacks, one comes to episodes of pancreatic edema which, instead of being isolated instances, usually are followed by more attacks. The group with multiple attacks may have many mild to moderate, separate episodes of pancreatitis with long or short quiescent periods. However, the pain of pancreatitis may be almost constant, so that, in this instance, one must carefully differentiate by history the confusing factors of alcoholism, drug addiction, psychoneurosis, and psychopathic personality from true pancreatic pain. At the end of the continuum, there are patients with severe acinar destruction and evidence of pancreatic exhaustion with little or no pain.

The great majority of patients have one of three general predisposing factors for pancreatitis. These are alcoholism, biliary tract disease and trauma. The most common is alcoholism which is present in approximately 50 per cent of the individuals. It is theorized that this may contribute to pancreatitis by virtue of (a) the excessive stimulation of bicarbonate and water from the intralobular ducts secondary to gastric acid and secretin; (b) the induction of local obstruction by gastro-duodenitis; (c) the increased susceptibility of the patient for induction of a medical illness of the pancreas secondary to protein deficiency. Pancreatitis is found concomitantly with biliary tract disease in about 40 per cent of individuals. In essence, the association is believed to involve the free reflux of bile into the pancreatic duct and pancreatic juice into the biliary system. The third general factor related to etiology of pancreatitis is trauma. This includes surgical manipulations of the biliary tract and pancreas, accidents resulting in gross trauma of the abdomen, and sometimes after delivery.

In regard to accidental trauma the relationship of the lumbar vertebrae to the pancreas is of importance. The gland has no protection against epigastric pressure, and it tends to be thrust forcibly against the vertebrae at the time of an accident, with frequent resultant edema or tearing of the body or tail of the pancreas.

The diagnosis of pancreatitis is frequently difficult. A careful consideration of pain is of primary importance in the more acute situations. Pain from the head of the pancreas tends to radiate to the right upper quadrant; pain from the body of the pancreas is referred to the epigastrium and pain from the tail is referred to the left upper or left lower quadrant of the abdomen. Pain also commonly radiates straight through to the back and the patient in such an instance obtains some relief by sitting on a chair and leaning forward over a bed. Pain is commonly preceded by a large fatty meal or an alcoholic bout. The pain usually may be differentiated from gallbladder disease by the fact that the intensity is more severe, there is often referral of pain to the left of the epigastrium and the fact that the pain lasts for a matter of days rather than hours. Both are commonly associated with severe wretching and vomiting. On physical examination, abdominal epigastric tenderness and signs of paralytic ileus are often elicited. The clinical suspicion of pancreatitis is classically confirmed by one test, the serum amlyase test. This examination should be done immediately and if not positive should be repeated daily when pancreatitis is suspected. The upper limits of normal usually are considered 200 Samogyi units. The serum amylase test is especially helpful in differentiating pancreatitis from cholecystitis. Besides the pitfalls of the laboratory, there are several clinical pitfalls: (1) The serum amylase tends to rise and fall quickly so that after 24 hours, one may miss the elevation. (2) Morphine, codeine and, to a lesser extent, demerol and pantopon may give artificially high results. Therefore, one should draw the amylase blood sample before attempting to relieve pain. It would be unusual for this factor to provoke a serum amylase of over 500 units. (3) The amylase may be low if the acini are destroyed or exhausted. This occurs occasionally in overwhelming hemorrhagic pancreatitis and more commonly with pain in the late chronic illness where it is difficult to obtain an elevation of the enzymes in the serum. (4) The amylase may occasionally be high in other surgical emergencies; these elevations may even go over 1,000 units. This, in particular, happens after perforated duodenal ulcer when, it is believed, the amylase is spilled from the duodenum into the peritoneal cavity and absorbed. In addition, it occurs in the obstruction of the small bowel where it is believed that enzymes as well as toxins and bacteria tend to be absorbed more quickly after there is distention of the bowel wall. The flat plate of the abdomen is another laboratory help in the detection of possible pancreatitis. Here, one looks for the presence of calcification of the pancreas found either to the right or left of the first to second lumbar vertebrae. One also looks for presence of localized gas in the duodenal arc, and one notes the stomach air bubble which may be distorted by the edema and the inflammation about the pancreas.

When one first examines a patient several days after an attack, the problem of differential diagnosis is even more difficult. In evaluating such a patient for possible pancreatitis a considerable emphasis must be placed on the possible etiologic factors commonly associated with pancreatitis which have been discussed earlier. The laboratory again may help. The serum lipase is generally elevated from the second or third day or for several days or several weeks. The serum calcium is depressed in severe pancreatitis from approximately the second to tenth days and especially found to be low from the second to fifth day.

In evaluating a patient for exhaustion of pancreatic enzymes, one is primarily interested in three factors: (1) evidence of calcification of the pancreas, detected with the flat plate of the abdomen; (2) the glucose tolerance test to show evidence of diabetes or exhaustion of the islands of Langerhans; (3) detection of steatorrhea and creatorrhea. In regard to the last factor, the patient with acinar exhaustion usually gives a history of having large, foul smelling stools which seem greasy and float on top of the stool water. Additional information may be found by aspirating the duodenal contents or studying the stool specimen. The study of the duodenal contents has generally been considered disappointing because the examination is difficult for the patient and because so often placement of the tube for aspiration has been inexact. Practically, then, the examination of the stool specimen has been more profitable. A simple estimate of the amount of fat in the stool is obtained by the Sudan-III test. This includes one or two drops of 30 per cent acetic acid and three drops of Sudan-III or fat stain. The stool and drops are heated on a slide to boiling which produces a hydrolysis of the soaps to fatty acid. On micro-examination one notes fatty acids and neutral fat stained as orange crystals or red drops. At the same time, under the microscope, one looks for evidence of poor protein digestion as evidenced straited muscle and cross squares of meat fibers. The most precise method of examination for fat absorption is through a fixed diet such as the Schmidt diet which entails a daily intake of 135 gm. fat and then determining the amount of fat found in the stool specimen. This test usually runs in a unit of three days and a normal individual absorbs more than 90 per cent of the ingested fat.

TREATMENT OF PANCREATITIS

Acute pancreatitis is treated medically. Keeping in mind the possible stimulating factors for the pancreas, one tries to make the pancreas as inactive as possible. The patient is given no oral feedings and Wangensteen suction is applied. The patient is given large doses of an anti-cholinergic drug such as 1/75 grain of atrophine every six hours or 50 mg. of banthine intramuscularly every six hours. The pain is controlled, if possible, by the use of nitrites which will induce the relaxation of the sphincter of Oddi; here sublingual nitroglycerin and inhalations of amyl nitrate are commonly used. When narcotics are necessary for relief of pain, one starts with a dosage of 50 mg. of demerol which may be repeated every two hours. If pain is a constant problem, consideration of epidural block is then necessary. The shock of acute pancreatitis is most commonly counteracted by the use of norepinephrine. However, there are times when blood and cortisone are indicated because of hemorrhage or adrenal failure. Infection is usually associated with pancreatitis. Penicillin and streptomycin are given for prophylaxis of this factor. In addition, intravenous saline, glucose, potassium and calcium are given from time to time when clinical judgment and electrolyte determinations indicate that they are needed.

The treatment of chronic pancreatitis with acinar exhaustion and without reference to pain, is treated by the addition of pancretin to the diet and by treatment of the diabetes with the appropriate doses of regular or NPH insulin. Pancreatin is generally given in the dosage of 10 to 20 grams a day and may be obtained in powder form when it is given to the patient as a supplement to fruit juices or a cola drink.

SURGICAL CONSIDERATIONS OF PANCREATITIS

In acute pancreatitis surgery is only indicated for drainage of cysts or abscesses when it is quite apparent that a mass is developing after pancreatitis. Of course, surgery is still occasionally performed when the diagnosis is in serious doubt.

A great many operations have been advocated for relief of the chronic pain of pancreatitis. These range from the extremes of tying off the pancreatic ducts and speeding the exhaustion of the pancreatic acini to doing a total pancreectomy. The operations are often grouped as being an indirect or a direct approach to pancreatitis.

When it is known that the biliary tract is diseased, the most common indirect type of operation for the problem is cholecystectomy and choledochotomy with examination of the common bile duct and removal of stones when they are present. Along this line, in the past, a diversion operation with an anastomosis of the common bile duct to the duodenum below the papilla of Vater or to the jejunum occasionally has been performed. During the last few years, there has been an increasing enthusiasm for sphincterotomy; in this operation the sphincter of Oddi is incised through an opening in the duodenum and the pancreatic ducts are probed. Other types of indirect operations are based on the concept of placing the pancreas at rest. These operations include vagotomy, gastroenterostomy and even gastrectomy.

As vagal stimulation produces an increased secretion of the enzymes amylase, lipase and trypsin from the acini of the pancreas, vagotomy is performed to protect the pancreas from these stimuli. Also, gastroenterostomy and gastroectomy decrease pancreatic activity indirectly by diverting gastric acid from the duodenum. It is recalled that acid flowing into the duodenum is of importance because the acid increases the production of secretin from the duodenal mucosa which invokes a greater flow of bicarbinate and water from the pancreas. Indirect operative procedures have also been directed toward relief of pain by interruption of the afferent nerve fibers from the pancreas. However, removal of the celiac plexus and dorsal splanchniectomy have usually been unsuccessful because the disease has spread to such an extensive area of the peritoneum.

A direct approach to relief from attacks of pancreatitis has been the removal of the head of the pancreas along with the duodenum and anastomosis of the proximal pancreatic duct to the jejunum. Also performed are simple incisions for removal of stones. Drainage of cysts has helped to decompress the pancreas in pancreatitis by producing internal or external drainage. In recent years there has been attention directed to the possibility of removing the distal end of the pancreas only. The pancreas is unique in being adequately drained distally as well as proximally. Therefore, if there is a mass or induration and stones at the head of the pancreas, it is possible for this area to be left alone and the tail of the pancreas resected and the distal pancreatic duct anastamosed directly to the jejunum. In this situation usually the duodenum is anastomosed to the jejunum below the area where the upper jejunum is attached to the pancreatic duct so a "Y" is formed. Although this latter operation is a relatively recent one, it has been reported now by several surgeons with successful results.

It is quite apparent that a good deal of thought must be given to the program for the patient with pancreatitis when there are so many possible surgical operations available. The first thing one must decide, again, is how much pain the patient is actually having as the operations are intended foremost for the relief of pain. One must again consider such elements as alcoholism, the age of the patient, and surgical experiences that the patient may have previously had. If the biliary tract is involved, it is almost essential to do a cholecystectomy, and to remove common duct stones when present, to see if this will relieve the patient of his pain. If the situation does not respond to this therapy, perhaps the next step most commonly taken and most understandable is the relatively benign incision of the sphincter of Oddi. Some surgeons use a combination of this procedure and the prolong drainage of the common duct with a loose fitting, long, limbed "T" tube. Lastly, there are the resection operations. It appears that the distal pancreectomy is being considered with the most enthusiasm at the present time. Total pancreectomy, although it sounds rather simple superficially, is done only occasionally because of the technical difficulties in separating the pancreas from the numerous and important blood vessels and organs adjacent to it.

CONCLUSIONS

The problems of pancreatitis today are most interesting because of the increasing recognition of the variations in the problem and the divergent views in regard to the surgical approach to the pancreas. If clinical pancreatitis is considered along the various stages of the continuum that have been discussed, one will recognize that a place for pancreatitis in diagnostic thinking must be reserved in situations varying from acute pain and a possible "surgical abdomen" to instances of diarrhea or weight loss without any pain.

Medical Center

Chamber Angle Studies in Developmental Glaucoma

Marfan's Syndrome and High Myopia

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HITHERTO IT HAS been generally taught that the angle of the anterior chamber acquires its adult form by atrophy of mesodermal tissue laid down in excess during normal fetal development. Accordingly, such features as pectinate ligament strands, when found in the adult human chamber angle, were ascribed to a persistence of excessive tissue normal to the embryonic and fetal chamber angles. Analogously, tissues excessive to the normal infantile or adult chamber angles, seen in patients with developmental glaucoma, have been designated as "mesodermal remnants." In fact, the whole modern concept of developmental glaucoma has been based on the idea of "mesodermal remnants" and the operation for goniotomy was originally designed for the express purpose of stripping the trabecular zone of such tissue.

Our team in the Department of Ophthalmology in the College of Medicine of the State University of Iowa has evolved a different view of the development of the anterior chamber.[1] We have found that no tissue is lost during normal development and that there is no need for atrophy of any of the mesodermal tissue which is normally laid down. Instead of this the angle of the anterior chamber opens by a simple splitting of two distinct layers of mesodermal tissue. This knowledge throws significant light on the interpretation of pathologic changes seen in developmental glaucoma and other congenital anomalies.

We were led to the reexamination of the embryology of the anterior chamber by clinical observations on the so-called posterior embryotoxon of the cornea which was first described by Axenfeld in 1920. This clinical entity consists of a slight opacity of the posterior surface of the corneal periphery. It is continuous with the limbus and never situated in the corneal stroma. This fact, and the fact that there is no clear corneal tissue between limbus and opacity, distinguishes this form of "embryotoxon" from the true embryotoxon and from the juvenile and senile arcus. On the corneal side of the "posterior embryotoxon" terminates more or less abruptly in a fine, sharp relucent line which may be thickened, at times markedly so, and may protrude into the anterior chamber. This edge may be scalloped. Pigment spots may be scattered on it and fine pigmented strands, coming from the iris, may insert on it.

Our biomicroscopic studies[2] have shown that in external slitlamp examination a fine opacity of varying width on the posterior surface of the cornea near the limbus can be seen in all normal eyes and that in 15 per cent of all eyes this opacity ends on the corneal side in a well defined line, prominent into the anterior chamber to a greater or lesser degree. We suspected that the opacity corresponded to the trabecular zone of the chamber angle and that its prominent border was actually a prominent ring of Schwalbe. Numerous gonioscopic examinations revealed that such was, indeed, the case. We confirmed what Busacca and Pinticart[3] had already shown by gonioscopy of one case, namely, that the so-called posterior embryotoxon of the cornea is nothing else than the trabecular zone ending in a prominent ring of Schwalbe.

The trabecular zone is visible in external gonioscopic examination in all normal eyes. In some it is more exposed, in others less, according to the configuration of the external limbus. A prominent ring of Schwalbe is found in some eyes in which there are absolutely no other anomalies. In other eyes presenting a ring there are more or less pronounced, fine threads extending from the iris to the trabecular zone, inserting on it at various heights, or on the ring itself. These strands represent pectinate ligament features. They may bridge the chamber angle or lie throughout their whole course flat against the other layers of the trabecular meshwork.

Many eyes exhibiting a prominent ring may have other minor congenital anomalies which in no way impair their function, such as a slight megalocornea or a slight microcornea, and an insignificant amount of atrophy of the stromal layer of the iris. Occasionally these anomalies may be much more pronounced, so much so that the size of the cornea is quite abnormal and there is corectopia and advanced atrophy of the stromal layer of the iris. But even these eyes may retain good function during the life of the patient. There

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Paper read at the Celebration of the Twenty-Fifth Anniversary of the Firmin Desloge Hospital, Saint Louis, Mo., March 27, 1958.

Note: This presentation was illustrated by numerous lantern slides. It was impractical to reproduce them in this article. The majority of them have appeared in previous publications or will appear in forthcoming papers.

are, however, also eyes in which these abnormalities have progressed far and in these eyes there is often also an increase in intraocular pressure and an intractable developmental glaucoma.

The syndrome of congenital anomalies discussed here is sometimes called Axenfeld's syndrome. Rieger has termed it "mesodermal dysgenesis of cornea and iris." The syndrome may be familial, as was shown for instance by Falls.[4] We have also among our cases a number of families in which the syndrome has occurred in two or three generations. It is of interest to note that there is a tendency toward anticipation of the developmental glaucoma in succeeding generations.

In one of our previous papers[2] we have described two brothers who were afflicted with one of the most extreme forms of the abnormality. Both brothers were between 35 and 40 years of age and both had far advanced glaucoma. At the time we saw them the younger brother told us of his then 3-year-old son who had large eyes and congenital glaucoma. The father was aware of the seriousness of the situation and decided to take the child to San Francisco where a goniotomy was performed on the left eye with what would seem to have been an excellent result. In the fall of 1957 the child was brought to the University Hospitals in Iowa City for suspected intracranial neoplasm. On November 4, 1957, a suboccipital craniotomy for a cerebellar cyst was performed and the child died on November 17, 1957. I had the opportunity of examining the child biomicroscopically on October 30, 1957. At that time a widely exposed trabecular band and an extremely prominent ring of Schwalbe were seen on external slitlamp examination. On gonioscopy innumerable iris processes were found to be present and there was a persistent fetal adherence of the iris to the trabecular tissue and a prominent ring of Schwalbe.

The eyes were obtained after the death of the child and the histologic examination has revealed numerous interesting details which will be presented in a forthcoming publication. On the whole the histologic findings confirmed the impression obtained during gonioscopy. Also, well developed collector vessels and Schlemm's canal were found in the sections, although the lumen of the latter was partly filled with oddly arranged endothelial cells.

The clinical and anatomic studies in this patient confirmed to us that one form of developmental glaucoma—either infantile or juvenile and even adult—is based on severe developmental anomalies which consist in essence of an inadequate splitting of the mesodermal layers during development which lead to a persistent adherence of the iris over a portion of the trabecular tissue and to the presence of pectinate ligament features. Closely connected with these developmental abnormalities is the finding of a prominent ring of Schwalbe which we believe to be due to an excessive laying down of cells during fetal development, as has been demonstrated in one of our previous papers.[5] These eyes have well developed outflow channels and a normal trabecular meshwork which is clearly defined in its anatomic structure, although its shape may be somewhat altered due to traction from the adherence of the iris to the ring of Schwalbe.

There is, however, a type of congenital developmental glaucoma in which the clinical appearance and the histologic picture are at variance with the one which has just been described. In these patients there is also a persistent fetal adherence of the iris to the trabecular tissue, or, as it is sometimes called, an "anterior insertion of the iris," but the chamber angle is free from pectinate ligament features and there is no prominent ring of Schwalbe. When such eyes are examined histologically one is struck by the severe abnormality of the trabecular meshwork. The base of the uveal meshwork is fanned into abnormal width. The trabeculae themselves lack the normal structural appearance and make up an irregularly interwoven form. The collagen of the trabeculae is not always surrounded with any or all of its layers—the elastic fibers, the Descemet's covering, the endothelium—nor are these elements found to be in an organized relationship to each other. Lastly, and most significantly, Schlemm's canal can not be identified in these eyes, or is notably abnormal or poorly developed.

The recognition of these two histologically distinct types of developmental glaucoma has important therapeutic implications and it is fortunate that they can be distinguished *in vivo* by gonioscopy. In the first type, characterized by extensive persistent pectinate ligament features and persistent fetal adherences of the iris, in which relatively normal outflow channels are present, goniotomy would seem to be a logical surgical procedure. In the second type with its disorganized trabecular meshwork and with the absence of outflow channels, goniopuncture, or some other operation allowing the direct evacuation of the aqueous would seem to be much more promising of success.

As has been pointed out, not all the patients with an externally visible trabecular zone, a prominent ring of Schwalbe and pectinate ligament features necessarily have developmental glaucoma. Finding these abnormalities in eyes affected with other conditions is often of interest and may be even of help in deciding on the nature and origin of the condition.

There is, for example, every indication that the patients with so-called essential atrophy of the iris belong to the group under discussion and that it would greatly clarify the literature on this puzzling subject if they were so considered.

Furthermore, in a case of posterior lenticonus Franceschetti and Rickli[6] found anatomically a long, slender trabecular zone, ending in a prominent ring of Schwalbe. Although the authors misinterpreted their finding, the illustration which they supplied left no doubt about its nature.

To us the anatomic studies of the eyes of patients with Marfan's syndrome, published by Theobald[7] and Reeh and Lehman[8] have been of particular interest. Theobald noted among other anomalies, indicating an arrest of development during the fifth and sixth fetal month, that there was an incomplete separation between iris and trabecular zone.

Dr. Reeh was kind enough to let us study and use a number of sections of the eye of his case and we shall report elsewhere a more detailed anatomic description of the chamber angles. I can point here only to some outstanding findings. The most impressive characteristic of the case of Reeh and Lehman was the similarity between the formation of the chamber angle of the patient and that of lower animals. Several irregular, coarse strands of pectinate ligament arose from the iris periphery, inserting upon one another and eventually upon the trabecular meshwork. The open spaces between the strands appeared to be equivalent to the spaces of Fontana in the lower animals.

Another most striking feature of this eye were two endothelium lined channels, resembling the canal of Schlemm in size and arrangement, lying external to it and being separated from it by a thickness of scleral tissue. In some of the sections a collector vessel connected Schlemm's canal with these channels. The latter were of particular interest to us from the standpoint of phylogenesis, because similarly arranged, but much more voluminous channels are a special characteristic of canine eyes.

The presence of mesodermal anomalies in the chamber angle of patients with Marfan's syndrome is of significance in view of the debated etiology of the condition. Because of the prominence of the luxation of the lens among the ocular signs of arachnodactyly, it has been thought of essentially as an ectodermal anomaly, at least insofar as the eye was concerned. However, already many years ago Weve[9] had proposed the term congenital mesodermal dystrophy for this condition and suggested that it was a maldevelopment of mesodermal derivatives. We are at present engaged in a gonioscopic survey of all patients with arachnodactyly who were seen over the years in our Department, in an effort to establish how frequently the anomalies are found which were observed anatomically in the cases of Theobald and of Reeh and Lehman.

Lastly, there is another group of patients in whom we are making a similar survey, and they are patients with high myopia. By this I do not mean patients with a high refractive error of myopic nature, but rather patients with the "disease" myopia, i.e., patients who have signs of more or less severe degenerative changes. In some of these we have noted rather pronounced pectinate ligament features in the chamber angles. It remains to be seen how frequent these prove to be. If they occur as frequently as I anticipate, such a finding may help support some of the newer views on this form of myopia, according to which it is a primary abnormality of mesodermal structures.

I have come to the end of my presentation. I could give you only a brief review of the chamber angle studies which we have pursued over the years in our Department and I was forced to leave out large chapters of it. It all started with a simple clinical observation. This observation inspired us to examine the corneoscleral limbus more closely and we found that we could always identify the trabecular zone in external slitlamp examination, and in rare instances even the region of the canal of Schlemm.[10] In 15 per cent of all eyes we found a more or less prominent ring of Schwalbe. The gonioscopic studies which followed prompted a detailed reexamination of the anatomy of the chamber angle in humans and in lower vertebrates. These comparative studies in turn demonstrated the necessity of evaluating the embryology of the area and in the course of this study a new concept of the development of the angle of the anterior chamber was evolved. This new concept gave us a better insight into some congenital anomalies of the chamber angle and allowed us to view as a single entity the various forms of these anomalies described in the literature under many names. It also led us inevitably to review the chamber angle in patients with developmental glaucoma and, less expectedly, in certain other congenital abnormalities. These long and often tedious studies have taught us much and have been a source of fascination to us. We trust that, they also may have some usefulness.

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Oral Treatment of Diabetes With Tolbutamide

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HISTORY

EVEN THOUGH the discovery of insulin by Banting and Best in 1921 could be classed as the greatest medical advancement of modern times, the inconvenience of injection has stimulated many investigators to find an oral method of treatment.[1, 2, 3, 4] One of these compounds, guanidine, even antedates the discovery of insulin. In 1918 when guanidine was given orally its hypoglycemic effect in animals was associated with so much central nervous system pathology that it was not tested clinically. Synthalin A and isalgen when given orally had hypoglycemic properties but it was soon discovered the chief reason for this action was liver toxicity. In the early 1940's Janbon noted the significant "hypoglycemia like reaction" typhoid patients had when treated with the sulfonamide compound I. P. P. D. Loubatieres[5] later proved these were true hypoglycemic reactions from the "sulfa" drug. In the early 1950's two urea substitution products of the sulfonamide compounds were given clinical trial. Carbutamide (BZ55) was the first sulfonylurea to be used clinically. This product of the Boehringer Compound was reported on by Bertram at the 18th Congress of Digestive and Metabolic Diseases in Germany in 1955. Because of its toxicity it was withdrawn from investigation in 1956.

Tolbutamide (Orinase, D 860, U 2043) was also a sulfonylurea but it was found to be less toxic because it contained a methyl group (CH_3) in place of the amino group (NH_2). Because of this significant difference tolbutamide was not bacteriostatic and had fewer of the undesirable side effects (fig. 1).

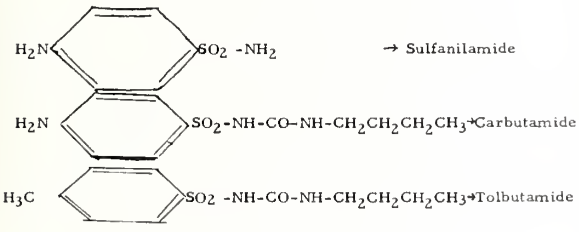
H_2N
SO_2 -NH_2
→ Sulfanilamide
H_2N
SO_2-NH-CO-NH-$CH_2CH_2CH_2CH_3$→Carbutamide
H_3C
SO_2 -NH-CO-NH-$CH_2CH_2CH_2CH_3$→Tolbutamide

Figure 1

In the last 18 months I have had 13 patients under observation with this drug and 10 of them have been able to take it successfully. These will be discussed in more detail later.

DBI (phenethylbiguamide)[6] is a much newer drug and differs from the others in that it is not a sulfonylurea. Mouratoff[7] found improvement in severe as well as mild diabetic patients. DBI differs from the sulfonylureas in that it alters the glucose tolerance curves in normal as well as all types of diabetic patients. Williams[8] suggests its insulin-like action is an increased peripheral utilization of glucose. Marble[9] states their group has been following some 75 patients and has been well pleased with it except for its local irritating effect producing nausea and vomiting whenever the dose is 200 mg. to 250 mg. per day. They also feel it smooths out the course of the unstable diabetic patient to some extent, even juveniles.

Chlorpropamide[10] is another sulfonylurea still in the experimental stage but has been found to be quite effective so far.

TOLBUTAMIDE

This drug has had extensive trial before it was placed on the market, being given to 18,000 patients. As of this writing it is felt that 250,000 patients are now taking the drug. If there are more than two million diabetic persons in the United States, then one in nine is now on the drug.

The exact mechanism of the action of tolbutamide in lowering blood sugar remains unknown despite a great amount of clinical and physiologic research. Certain facts, however, are agreed upon by a majority of investigators: (1) It is without effect in the absence of pancreatic tissue. (2) It is generally believed that tolbutamide stimulates the beta cells of the pancreas to produce more insulin and the hypoglycemic effect finally results from the individual's own insulin. Bänder[11] has shown that the insulin granules in the beta cells of the healthy control animal (dog) disappear 24 hours after a large dose of tolbutamide. In another 24 hours they have reappeared and in 48 hours are in normal numbers. (3) Tolbutamide should only be given to individuals over 40 years of age. (4) The drug is not useful in the presence of infection and usually insulin has to be supplemented or substituted.[15]

METHODS OF SCREENING

Three methods may be used to screen individuals for tolbutamide. Sherry[12] gave 1 gram of the drug intravenously and he found that those that had greater than 15 per cent drop in blood sugar in two hours responded to oral therapy. However, with further experience he felt the test was too inaccurate to use routinely. Duncan[13] withdraws all insulin for 48 hours. If no ketonurea develops he finds these individuals respond satisfactorily to the drug. I have found the oral test[14] to be fairly accurate. The patient uses regular insulin for two days before the test. He reports at 8:00

Presented March 13, 1958, before the Chariton-Macon-Monroe-Randolph County Medical Society.

a.m. for a fasting blood sugar and is then given 3 grams of tolbutamide. Blood sugar is repeated in four hours. If the blood sugar drops more than 20 per cent the patient can probably take the drug satisfactorily. Fulton and Bell,[15] however, find no definite correlation between the tolerance test and whether or not the patient can be maintained on the drug. They found as I did that some who show a positive tolbutamide test cannot be maintained on the drug and vice versa. They even state that a trial with tolbutamide should be offered to every adult diabetic patient.

CONVERSION

Converting from insulin to tablets may be done in different ways. A general rule of 3 grams the first day, 2 grams the second day, then gradually reduce to a maintenance dose which usually averages 1 gram daily. Those taking 40 units of insulin or less may take 20 units the first day that 3 grams is given, then 10 units the second, and then according to the response of the patient it will be determined whether or not the insulin is to be stopped. Response is usually complete in a week. If they have not responded in this time I have found it advisable to switch right back to insulin. Using the response to the tolbutamide test and the amount of insulin the patient takes, one can often predict the amount of drug needed. I have found a rough rule of one tablet (½ gram) for each ten units of insulin is fairly accurate, providing there is a 20 per cent or better drop in blood sugar in the tolbutamide test. If a person needs more than three tablets daily they do better supplementing insulin rather than taking more tablets. There is also better control by having patients take one tablet after breakfast if one daily, one after breakfast and supper if twice daily, and one after each meal if three times daily.

REACTIONS

Considerable work has been done to determine the effect of tolbutamide on other organs of the body besides the pancreas.[14, 16] There has been no evidence of depression of pituitary, kidneys or adrenals. An occasional patient has shown slight reduction in protein bound iodine or I^{131} uptake, but no clinical evidence of hypothyroidism. Sherry[17] has done extensive liver studies on 98 diabetic patients who had been on tolbutamide an average of seven months. He found no evidence of liver damage. There have been no cases of agranulocytosis.[9, 18] In a study of 7,027 cases treated with tolbutamide[18] 0.18 per cent developed white counts below 4,000 but in each instance the count returned to normal whether the drug was stopped or not. Routine white counts[18] should be done at monthly intervals for the first three months, but after that are probably unnecessary. All of my cases had from two to three white counts over the time they were observed and none had leukopenia.

Dermatologic reactions such as urticarial, maculopapular, multiforme and erythema were noted in 1.14 per cent and usually occurred at time of conversion. I have not noticed this—but my patients did not start out with as large a dose as usually recommended.

CASE SUMMARIES*

Table 1 summarizes the case histories of thirteen patients who have taken tolbutamide over the last 18 months. Ten have taken it successfully. They are on a 1800-2000 calorie diet, 60 grams fat, 100 grams protein, and 250 grams carbohydrates.

CASE REPORTS FROM TABLE

Case 1. ACJ, a 76 year old woman, came in the hospital in September 1956, in diabetic acidosis with blood sugar of 516 mg. per cent. Without even trying her on maintenance insulin alone, as soon as she was controlled I started her on two tablets of tolbutamide and 10 units PZI. In November 1957, her blood sugar was 232 mg. per cent, so I increased insulin to 20 units and gave her three tablets daily. Her non-fasting blood sugar in December 1957, was 156 mg. per cent.

Case 2, LB, a 67 year old woman, was admitted November 1956, in a mild acidosis. She was first given two tablets daily, then a month later one tablet daily. Her control was so good that in February 1957, the non-fasting blood sugar was 134 mg. per cent and in January 1958, 106 mg. per cent. I am not certain whether or not her loose stools three months ago were due to the tolbutamide but they cleared and the drug was not stopped.

Case 3. WJT was a 70 year old man whose diabetes was picked up in the November diabetic drive eight years ago. He required 20 units of NPH insulin daily but he is well controlled on one tablet daily and he carefully holds himself to a 2000 calorie diet. His non-fasting blood sugar was 170 mg. per cent two years ago and 150 mg. per cent last month. For some reason or other a tolbutamide tolerance test was not done on him till last month and even though his fasting blood sugar was almost normal, 134 mg. per cent, there was still a 20 per cent drop in four hours, to 106 mg. per cent. He had been taking tolbutamide 1½ years before this tolerance test was done.

Case 4. ALY is a 60 year old diabetic person whom I have treated for the last ten years. She has been a moderately severe diabetic and one I would not have normally changed, but she seemed quite anxious to try the tablets and her tolerance test (which was my first one) showed a 32 per cent drop. Her control had been only fair but two weeks ago she had a non-fasting blood sugar of 138 mg. per cent which is the best she has ever had.

Case 5. RH was a 68 year old diabetic patient who had never taken insulin but when first seen in December, 1956, was in mild acidosis with blood sugar 258 mg. per cent. He was much against insulin so he was placed on one tablet daily, but a non-fasting blood sugar in January 1958, was 201 mg. per cent so he was placed on three tablets daily and last month his blood sugar was 125 mg. per cent. He has been taking tolbutamide for more than a year but the tolerance test was not done till last month and even then showed a 19 per cent drop.

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* The first 9 months these patients were under observation the tolbutamide (Orinase®) was generously supplied by the Upjohn Company through C. J. O'Donovan, M.D.

Case 6. JRR, a 71 year old man was first seen two years ago with diabetic acidosis and a moderately severe pyelonephritis and prostatitis. After his infection cleared and diabetes was controlled on 40 units Lente insulin he then became quite anxious to try the tablets. His tolerance showed an excellent response of 54 per cent drop. He did well on two tablets daily for a year but in January 1958 his blood sugar was 225 mg. per cent so dosage was increased to three tablets daily. Two weeks ago his non-fasting blood sugar was 193 mg. per cent. His kidney infection has

TABLE 1

NAME Sex-Age	*How Long Diabetic*	*Prior Insulin*	*Status When Changed*	*Tolbutamide Tolerance Blood Sugar in mg. % 4 hrs. after 3 gm.*	*Tolbutamide* Date Changed & Amount*	*Blood Sugars in mg. % "Non-fasting"*	*Control on Tolbutamide*	*Comments*
1. ACJ F-76	New	None	Acidosis New	Not done	Sept. 56-2 tabs & 10 U PZI Nov. 57-3 tabs & 20 U PZI	Sept. 56-516 Nov. 57-232 Dec. 57-156	Good	None
2. LB F-67	New	None	New, mild	Not done	Oct. 56-2 tabs Nov. 56-1 tab	Oct. 56-212 Feb. 57-134 Jan. 58-106	Good	Loose stools cleared without stopping tolbutamide
3. WJT M-70	8 yrs.	NPH 20 U	Good	Feb. 58 134-106 21% drop	Oct. 56-1 tab	Nov. 50-280 Jan. 56-170 Feb. 58-150	Good	None
4. ALY F-60	10 yrs.	PZI 20 U	Good	Nov. 56 250-170 32% drop	Nov. 56-4 tabs Jan. 57-2 tabs Oct. 57-2 tabs & 10 U PZI Feb. 58-3 tabs, no I	May 48-264 Sept. 54-440 July 57-176 Oct. 57-239 Feb. 58-138	Good	None
5. RH M-68	18 yrs.	None	Good	Mar. 58 161-130 19% drop	Dec. 56-1 tab Jan. 58-3 tabs	Dec. 56-258 Aug. 57-171 Jan. 58-201 Feb. 58-125	Good	Has had angina for years relieved by nitroglycerine
6. JRR M-71	2 yrs.	Lente 40 U	Good	Jan. 57 180-82 54% drop	Jan. 57-2 tabs Jan. 58-3 tabs	Jan. 57-186 Feb. 57-213 May 57-118 Jan. 58-225 Feb. 58-191 Mar. 58-166	Good	None
7. LD F-76	15 yrs.	NPH 25 U	Good	Not done	Feb. 57-3 tabs	Feb. 50-243 Feb. 57-201 Jan. 58-225 Feb. 58-208	Fair	HCVD 10 years, 2 strokes. Developed an acute gallbladder and had to be changed back to insulin because of acidosis
8. JL F-52	12 yrs.	Lente 40 U a.m. 10-20 p.m. According to test	Poor control	Not done	Feb. 57-1 tab & NPH 40 U Apr. 57-Stopped tablets	Nov. 54-302 Sept. 55-294 Apr. 57-302 Oct. 57-156	Poor	Won't stay on diet but improved on Lente 60 U and reducing 25 lbs. Diabetic retinopathy.
9. TLJ M-44	10 yrs.	NPH 30 U	Poor control	Apr. 57 500-368 40% drop	Apr. 57-2 tabs Stopped after 12 days	Nov. 56-311 Mar. 57-110 May 57-547	Poor	Begged to be changed. This either indicates the fallacy of the test, or possibly I did not change him gradually enough. Infection a factor also.
10. JFB M-57	10 yrs.	PZI 20 U	Good	Aug. 57 110-85 23% drop	Aug. 57-2 tabs	Apr. 52-134 Sept. 57-138 Nov. 56-122	Good	Tuberculosis. Lues. Trophic ulcers of feet. Anxious to take tablets.
11. LME F-61	8 yrs.	PZI 20 U	Good	Sept. 57 138-96 33% drop	Sept. 57-2 tabs	Sept. 57-147 (fasting) Dec. 57-156 Feb. 58-142	Good	None
12. OMM F-72	8 yrs.	None	Poor-would not take insulin	Nov. 57 150-111 26% drop	Nov. 57-1 tab	Dec. 50-190 (fasting) Jan. 58-212	Good	A mild diabetic but has felt better on tolbutamide.
13. OOH F-72	10 yrs.	NPH 20-30 U	Poor control. Acidosis	Dec. 57 211-156 38% drop	Dec. 57-3 tabs & NPH 20 U	Dec. 57-309 Jan. 58-148	Good	None

been difficult to clear and that may be because of the sulfonylurea, because I have tried numerous urinary antiseptics including the drug he showed sensitivity to on culture. However this week his urinary microscopic examination was normal and non-fasting blood sugar was 166 mg. per cent.

Case 7. LD, a 76 year old diabetic patient with severe hypertensive cardiovascular disease has had two strokes. She is most unreliable but since I could not depend on her to take insulin I felt there was nothing to lose by her taking tolbutamide. Two weeks ago her blood sugar was 208 mg. per cent which is about as good as it has ever been. However, recently she developed a gallbladder attack while on tolbutamide so she had to be changed back to 25 units insulin daily.

Case 8. JL, a 52 year old woman had severe diabetes with hypertension, cardiorenal disease and diabetic retinopathy. She would not take more than 40 units of insulin so I added a tablet of tolbutamide to the insulin but it was not helpful. I only tried this two months then saw how futile it was and stopped it.

Case 9. TLJ, a 44 year old man came in in diabetic acidosis and a severe perirectal abscess. The abscess was drained and the diabetes controlled with insulin. He did comparatively well on insulin but he kept wanting to try the tolbutamide. After his excellent response to the tolerance test I placed him on the tablets, but a latent pyelonephritis and prostatitis flared up and in twelve days he was in severe acidosis, and insulin had to be started again. He and case 7 are good examples of how the diabetes does not respond to tolbutamide in the face of infection.

Case 10. JFB, a 58 year old man, is a good example of the perfect patient that cooperates to the fullest extent. His tolbutamide response was excellent, a 23 per cent drop. He maintains a strict 2000 calorie diet and gets along well on two tablets daily. His last blood sugar was 122 mg. per cent.

Case 11. LME, a 60 year old school teacher, is another example of a cooperative patient who was anxious to take tolbutamide. Her tolerance test indicated she would be well controlled and she is on two tablets daily. Her last non-fasting blood sugar was 142 mg. per cent.

Case 12. OMM, a 72 year old woman, has had mild diabetes for eight years but would not take insulin. In November 1957, her fasting blood sugar was 217 mg. per cent. Since she would not take insulin and gave a nice response to the tolerance test I placed her on one tablet daily and her non-fasting blood sugar of 212 mg. per cent was not bad considering all factors.

Case 13. OOH, a 72 year old woman with hypertensive cardiovascular disease, was admitted in December 1957, in diabetic acidosis. Fasting blood sugar was 304 mg. per cent. She was poorly controlled before on 20 to 30 units of NPH insulin. Now she takes 20 units NPH insulin plus three tolbutamide tablets and is well controlled.

CRITERIA OF A GOOD DRUG

1. Orally, preferably once daily.
2. No side effects.
3. Retains its effect even with prolonged use.
4. Inexpensive.

Tolbutamide can be taken orally. Its side effects are minimal up to the present time. It seems to retain its effect over at least two years now. But it is definitely expensive, costing 13½c a tablet. The average individual taking two tablets daily spends $8.00 monthly as compared to approximately $2.00 monthly for 20 units of insluin per day.

INDICATIONS FOR THE USE OF TOLBUTAMIDE

1. Prior insulin requirements or duration of insulin therapy does not seem to alter the response of the drug.
2. It is useful in late onset diabetes, particularly in those past 40.
3. Useful in that small group of obese patients who will not or cannot abide by a diet.
4. It is of special value in old people with poor eyesight, palsy, arthritis and other disorders making the giving of insulin to themselves almost impossible.

CONTRAINDICATIONS FOR THE USE OF TOLBUTAMIDE

1. It is not effective during the course of bacterial or viral infections.
2. Juvenile diabetic persons or those who develop acetone in the urine 48 hours after stopping insulin.
3. People uncooperative or unreliable should not be started on the drug.
4. Diabetes of "steroid treatment" does not respond to tolbutamide.
5. Those with collagen diseases such as lupus erythematosus should best not be treated with this drug at the present time.
6. Patients with sulfonamide sensitivity should not take it.

SUMMARY

This paper presents thirteen cases of diabetic patients past 40 treated with tolbutamide. The first case was started eighteen months ago. The average observation has been thirteen months. Ten are taking it successfully. This conforms with the over-all studies indicating 75 to 80 per cent of diabetic persons in this age group can take the drug. A partial review of the literature was made and the indications and contraindications were given.

346 Woodland Avenue

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Rheumatic Fever

A Follow-Up Report of the St. Louis Secondary Prevention Program

J. EARL SMITH, M.D., AND PAUL WAITT, M.D., *St. Louis*

IN MAY, 1957, there appeared in MISSOURI MEDICINE a prospectus for a secondary Rheumatic Fever Prophylaxis Program for the City of St. Louis. This paper is a follow-up report on that program.

The St. Louis Program was initiated in August of 1957. It is conducted as a cooperative venture by the St. Louis Division of Health, the Missouri Division of Health and the St. Louis Heart Association.

A rather comprehensive survey had been made in the City of St. Louis prior to selecting this particular project. The survey was designed primarily to determine what needs were not being met by existing health facilities in the City of St. Louis, particularly as they pertained to the potential or actual cardiac patient. It was generally believed that clinical facilities were quite adequate for treatment of the acute cardiac patient. Neither the Heart Association nor the Health Division has any province in offering or rendering patient care *per se*. Therefore, in looking at the potential field in which gaps needed to be filled, preventive measures were assigned high priority. The secondary prevention of rheumatic fever fitted well into this category. The reasons for this were as follow:

1. There was a genuine need for this type program since no organized effort had previously been made to make available to the medically indigent patient prophylactic drugs free or at reduced cost.
2. Such a program had proven valuable in other areas.
3. It was economically feasible.
4. It was relatively easy to organize and administer.

Accordingly funds were provided by the three sponsoring agencies to set up a pilot project. Additional support was given in the form of a direct grant from the Heart Disease Control Program of the United States Public Health Service. The mechanics of the administration of the program were worked out and the program officially began August 1, 1957. Since that time, up to May 31, 1958, four hundred cases have been registered. It is anticipated that five hundred patients will be registered by the first anniversary of the program.

The program is primarily designed to serve residents of the City of St. Louis, but there is considerable overlapping of coverage into St. Louis County and out-state Missouri. A number of patients living outside the city limits come to rheumatic fever clinics in the City of St. Louis, therefore they become eligible under the program. Free prophylactic drugs are restricted to the medically indigent patient. To date practically all patients registered under the program attend one of nine rheumatic fever clinics. These patients are screened in relation to financial status prior to being admitted to the clinics, therefore the decision as to who is or is not medically indigent has not been a problem.

As a rule, only those patients under 21 years of age are eligible. There are included in the program a relatively small number of patients in a special study group who are more than 21 years of age.

The St. Louis Heart Association provides clerical-secretarial assistance to operate the mechanics of the registry. The Association also functions in an educational capacity for the lay public. This education is given on the general topic of rheumatic fever and does not deal with this specific prophylactic program. This has been done through movies and talks given before organizations such

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Health Commissioner, City of St. Louis.
Heart Disease Control Program, U. S. Public Health Service.

Diabetes (Continued)

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as Parent-Teacher Associations as well as by the media of radio and television. The Health Education Section in the St. Louis Health Division also supplies municipal health centers with appropriate literature pertaining to the prevention of rheumatic fever.

The Missouri Division of Health provided funds for establishing this pilot program with the hope that it may provide useful information in establishing similar programs elsewhere in the state.

The St. Louis Division of Health assumes primary responsibility for administering the program. The division provides prophylactic drugs, maintains the case registry and assists in follow-up where necessary.

A description of the basic operation of the St. Louis Secondary Rheumatic Fever Prevention Program follows.

There is a central registry located within the physical plant of the Health Division from which administrative functions are carried out. The prophylactic drugs are bought through open bid by the state or city purchasing agent and are delivered to the Health Division. From there these drugs are placed in pharmacies of the respective hospitals cooperating in the program.

Report forms for each patient are sent to the central registry from each of the respective clinics. On the back of these report forms is a prescription blank which is completed by the attending physician; this prescription is filled at the hospital pharmacy and a carbon copy of the prescription is returned with the report to the central registry to serve as a check on how the drugs are being prescribed.

The registry is so arranged that follow-up forms are sent out at appropriate intervals. These in turn are returned to the Health Division for further tabulation.

It is our feeling that the percentage of "false positives" on the registry is quite small. This would appear to be true for several reasons. Since the program began, there have been only five cases in which the diagnosis has been changed. There are currently seventeen cases on the registry in which the diagnosis of acute rheumatic fever or rheumatic heart disease is equivocal. Differential diagnosis considered in these cases are rheumatoid arthritis, congenital heart disease and dermatomyositis. Due to a rather detailed registration form it is possible to document beyond reasonable doubt the existence of either a good history of acute rheumatic fever, or fairly definite evidence of rheumatic heart disease. Most of the patients who are registered are cared for in clinics supervised by physicians who have a special interest in the area of congenital and rheumatic heart disease.

The St. Louis Rheumatic Fever Program *per se* does not offer diagnostic services. However, two of the cooperating clinics have for several years offered diagnostic services to any child in the St. Louis area. One of these is partially financed by the St. Louis Heart Association.

Drugs prescribed by the attending physician are provided free of charge to all medically indigent patients accepted into the program. Currently two types of prophylactic drugs are provided—oral buffered penicillin tablets, 250,000 units; and injectable benzathine penicillin, 1.2 million units.

The dosage schedule is left entirely to the attending physician. Of the four hundred patients registered, seventy-three are taking one 250,000 unit tablet daily, two hundred thirty-three are taking two 250,000 unit tablets daily, and eighty-six are taking 1.2 million units of injectable benzathine penicillin every thirty days. There are eighteen patients registered who are taking no prophylaxis or who are taking one of the broad-spectrum antibiotics.

The patient is usually given a prescription for enough drug to last from one clinic visit to the next scheduled clinic visit. The practice of prescribing more than a ninety day supply is discouraged.

Under the present program follow-up has been carried out by the social workers assigned to the rheumatic fever clinics. If a patient does not return for his clinic visit as scheduled, a letter is sent to his home giving him a new appointment. This is usually successful.

Since the program began there have been twelve cases removed from the registry. Three of these moved out of the State of Missouri; in five cases the diagnosis has been changed; and one has died. Three cases have been removed for miscellaneous reasons.

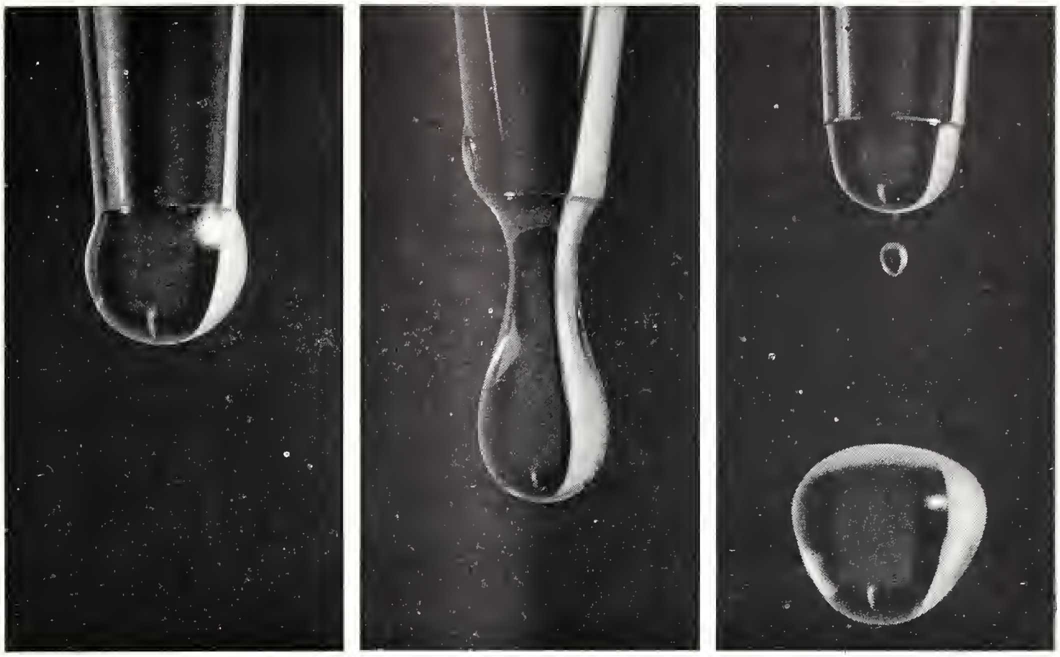
No studies utilizing data contained in the register pertaining to any of the various facets of rheumatic heart disease have been carried out. However the potential is great for a number of significant observations; but since the program is less than one year old and due to the chronicity of the disease the period of observation is too short to draw valid conclusions from the present data. Pertinent analysis of register data will be presented at a future date.

PUBLIC WANTS MEDICAL NEWS

A monumental nationwide study, sponsored by the National Association of Science Writers and supported by a grant from the Rockefeller Foundation, strongly indicates that the American public has a big appetite for science news, especially medical.

But the surprising conclusion is that because of space limitations all "mass media are transmitting only a microscopic part of the mountainous supply of science information potentially available to them."

The study is entitled "The Public Impact of Science in Mass Media." It was conducted by the Survey Research Center, Institute for Social Research, University of Michigan.



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SEARLE

Special Article

Strategy Is Everybody's Business

FRANK ROCKWELL BARNETT, *New York*

IT IS ALWAYS a genuine pleasure for a research professor to be unchained—temporarily—from his shelf in the ivory tower and afforded the chance to inflict his theories on a whole roomful of practical-minded men of affairs. I hope to prove, however, that one of the most practical, down-to-earth assignments for the American doctor today is to become a serious student of public affairs, including politics, economic philosophy, foreign policy, national defense strategy and the educational theory that molds your children—and through them—the will and character of this nation in the time of trouble that lies before us. For the next two decades may decide the fate of man for the next 500 years, or forever.

Doctors are often stern when they prescribe for patients who refuse to take warning signs seriously. May I, as a layman, turn the tables and be somewhat stern with this distinguished body? The "patient" in this case is the body politic: a free society which encourages individual initiative in business, law, medicine and engineering. The diagnosis for that civilization is cancer in the intestines and paralysis of the will. The prognosis is an untimely end for a patient too soft to enduce surgery, too undisciplined to take medicine, too purposeless to survive. It will involve intellectual therapy and moral hygiene; or, in old-fashioned terms, homework and will power.

I hope to demonstrate that it is important for doctors to think about political muscle tone, ideological x-rays and preventive education. I hope also to indicate that unless at least one man out of every three in this room commits himself to an active role in public affairs it is unlikely that your profession will survive its competition. By "competition" I do not mean the friendly race between Blue Cross and other insurance programs. There is a new kind of competition abroad in the world today. This form of competition, spelled in "all-caps," is designed to destroy—utterly and for all time—the moral, legal and political framework of the civilization which undergirds our voluntary society. If Genghis Khan & Co. win this competitive struggle, there will be no second chance for freedom.

The American Voluntary Society faces two mighty competitors—World Communism and International Socialism. Some students would argue that Communism and Socialism are twin engines in the same juggernaut. But perhaps there are useful distinctions. The threat of Communism is largely external, military, scientific, political and economic. It is an immediate threat. Its weapons are violence, subversion, propaganda and blackmail. The danger of Socialism is largely internal and long-range. Its weapons are education, persuasion and the ballot box.

Many Socialists are firmly opposed to the force and terror of Communism. Socialists—unlike hard core, fanatical Communists—are sometimes open to counter persuasion from men sufficiently articulate to debate issues with them. Socialists have been voted out of power in England and Australia—but when Communists have been threatened by the will of the people, they have, as in Hungary, sent in armored divisions to crush the opposition to lifeless pulp.

Although I do not in any way agree with Socialist economic theory, it is only fair to admit that many Socialists—as human beings—are honorable, decent and even idealistic people who want to achieve good things for humanity. They are not professional revolutionaries or conspirators like the Communists. Indeed, some Socialists are so idealistic that they cannot comprehend now ruthless and cynical Communists can be. When Communists come to power, Socialist intellectuals are often the first to be purged. In Czechoslovakia, for example, a Socialist leader named Masaryk tried to walk a "middle course" between Communism and Western Democracy. He ended up, still in the middle-of-the-road all right—but from nine stories up where someone had pushed him out of the window.

Although they use different means, both Communism and Socialism confront America with a mortal challenge—and we are in danger of being caught between hammer and anvil. The external threat is ubiquitous and terribly real; yet free men hesitate to oppose the Communist enemy on all fronts for fear we may gradually surrender our own civil liberties, economic freedoms and political liberties to Big Government here at home.

Is there any way out of the dilemma? One remedy is to apply the American genius for voluntary action to the realm of public affairs. But this re-

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Director of Research, The Richardson Foundation, Inc.

Presented at the annual meeting of the Conference of Presidents and other Officers of State Medical Associations at San Francisco, June 22, 1958.

The opinions herein expressed do not necessarily represent those of the Richardson Foundation, Inc.

quires that the managers and professional leaders of our society must make public affairs their avocation—their full-time hobby. They dare not hold aloof from political life and from hard intellectual effort. They will have to do their "homework" in philosophy and history. And they must not wait for another Pearl Harbor or giant depression to move them to prudent action.

Pearl Harbor proves a point—because Pearl Harbor was an event that permanently changed the lives, fortunes and future of every man in this room. Beyond that, Pearl Harbor radically revised American axioms about world geography and power politics. In a handful of minutes, Japanese dive-bombers not only sank our Pacific Fleet, they also torpedoed unreal assumptions about the technical capacity of "foreigners" and the use of trade or good will as effective means of deterring aggression.

We had thought that East was East and West was West. We learned the hard way that 20th Century America is cheek by jowl with the Orient, that the Burma Road intersects with Main Street, that Tokyo and Berlin—and now Moscow and Peiping—are closer to Chicago than Philadelphia was to Boston at the time of the American revolution.

These lessons were derived from the bombing of December 7, 1941. But on December 6, 1941, America was already at war, even though we did not know it; for while it takes two to keep the peace, it takes only one to make a war. So, as America slept, the carriers of Imperial Japan were converging on Hawaii. The bombs had been loaded, the pilots briefed, the mission assigned, the die cast for our people by war lords on the far side of the earth. We learned that war starts—not at the moment of the surprise attack—but when the enemy completes his final plans and commits his resources to conflict.

Again we are at war—a new kind of war with unorthodox rules and camouflaged weapons. Our failure to recognize that fact does not affect the designs of the Kremlin. Again, it is an enemy—not ourselves—who has decided to involve the United States in conflict. Again, our own good intentions are beside the point. And, again, there is danger that our country may drowse through the afternoon of its December 6, through a night of no return, into another kind of Pearl Harbor—where the hour and the place, and the cost and the sacrifice are all determined by factors outside our control.

Only this time, the odds are much heavier against America than on that other December 6, sixteen years ago. What if, in 1941, the power of Japan had already swallowed two fifths of the earth? What if Japanese science had in some respects surpassed our own? What if Tokyo had dominated a billion people whose labor could be coerced to the cause of conquest? What if her fifth columns had penetrated every country in the world, including the United States? What if Japan had had vast natural resources, abundant water power, access to oil, no need to import steel or coal? And what if Japanese submarines and bombers, armed with atomic weapons, had been based as close as Alaska, Mexico, Canada, Catalina, Nantucket, Key West and Bermuda? The equivalent of this nightmare supposition has come to pass since 1945, with the Soviet conquest of space and the invention of guided missiles—with the manpower of China and the resources of Eastern Europe feeding the Communist war machine—and with India, the wealth of Indonesia and the oil-rich Middle East only three assassinations and a few street fights removed from the grasp of the Kremlin.

In short, an Asiatic conqueror stands on our frontier. Owing to science, the Atlantic Ocean is no wider than the Rio Grande. Owing to technology, the Pacific is no broader than Lake Michigan; and the wastelands of the North can be bridged in a few hours' flight. We Americans are face to face with the descendants of Genghis Khan.

Indeed, television brings Mr. Khrushchev into millions of American living rooms to lecture on the glories and inevitable triumphs of World Socialism. When a Soviet leader denounces Wall Street monopolies, his message is transmitted free of charge on the front pages of American newspapers and contributes to the general climate of opinion in this country.

HIS ARMIES PRACTICE "CONQUEST BY COMMUNICATION"

Khrushchev & Co. are no longer a rude barbarian horde. They are disciplined in science and well-armed with engineering. They are schooled in economics and political theory. They speak many languages. They have learned to use education, literature, art, trade and even religion as weapons of subversion. Above all, they are superbly trained in the conduct of symbol-warfare—in conquest by communication and warfare by words.

THE MILITARY CANNOT DEFEND AMERICA AGAINST SYMBOL-WARFARE

That is why we must talk about management's responsibility for public affairs and national secrity. In the past, wars were chiefly shooting matches, and businessmen naturally left defense problems in the hands of America's soldiers. Today, the front is everywhere. Certain intangibles can literally "wash out" the material foundations of defense. If the world climate of opinion is mobilized against us by propaganda, we will lose markets, air bases and access to strategic raw materials. If, here at home, we lose the will to sacrifice or cynically disregard our spiritual traditions, our physical wealth will not safeguard American civilization. Today, national defense begins at the level of domestic political morality, the quality of citizenship training for our youth, and the reputation of American business growth both here and abroad. These "intangibles" are the clear responsibility of private citizens.

WE ARE FACED WITH THE PROBLEM OF NATIONAL SURVIVAL

Ancient Carthage, with its luxury standard of living, refused to make minimum sacrifices to support Hannibal and did not survive. Cato's relentless chant "Carthage must be destroyed" did not awaken the indolent Africans from their preoccupation with business-as-usual. They could not believe that Cato, like Khrushchev, meant what he threatened. Similarly, Rome itself, entertained with bread-and-circuses and arrogant in its splendor, did not survive the onslaught of the Vandals and Visigoths. The technical skill that built her roads and aqueducts, the "know-how" of her administrators, the glory of her law—none of these assets saved an effete and over-civilized Rome.

Nor did Rome's Gross National Product protect her. The Visigoths had no GNP whatsoever—only weapons and will power. These dismal comments on Carthage and Rome could be repeated for other proud civilizations. Many times in the past, nations with high standards of living have been pushed to the grave by nations with low standards of dying.

History teaches that when a people put indulgence before discipline, worship welfare and discourage risk-taking, they are likely soon to be forced into bankruptcy by a more vital competition. Especially if they no longer believe in themselves. For nearly twenty-five years this country has been confused by a Cult of Doubt. Too many Americans suffer an odd guilt complex about their own way of life. Meanwhile the missionaries and conquistadors of the Communist Church Militant advance Marxism as the one true faith—and they are willing to die for their belief. That is why the battles of the Cold War are fought on our side of the Iron Curtain and at the Kremlin's initiative. That is why trying to contain Communism with a Maginot line of dollars and diplomacy is bound to fail. We forget that no status quo power has ever checked the thrust of a dynamic barbarian—for even if the "defense" is 90 per cent successful on every occasion, a civilization can be driven to its doom ten yards at a time.

THE SOVIETS HAVE MADE STARTLING TECHNICAL GAINS

In 1945, America enjoyed absolute air-atomic supremacy. In less than a decade, Russia has broken our monopoly in nuclear weapons, beaten us into space, produced jet aircraft and tested guided missiles. A system once contemptuously called the "ox-cart economy" has built the world's second largest navy, graduates more than twice as many engineers as America, and, by ruthlessly disregarding the claims of its consumers, is outproducing us in heavy machine tools, the basic equipment of war.

THE REAL THREAT: SOVIET FOURTH DIMENSIONAL WARFARE

But the greatest threat to our civilization may not stem from Soviet guided missiles or engineering of atomic weapons. We have brilliant scientists, able generals and inventive industrialists who doubtless can safeguard national security on the technological front. It is in the realm of "fourth Dimensional Warfare"—or psycho-social combat—that we are hopelessly outclassed. We know a lot about the tricks and technics of mass persuasion—but we have not yet applied that knowledge to the main challenge of our time—how to beat Communism without fighting a hot war.

We use advertising skills and the "hidden persuaders" to change consumer taste in salad dressing. We use high-powered public relations to boost the box office appeal of a rock-and-roll cowboy. The Soviets exploit Pavlov, propaganda and group dynamics to overthrow empires and condition the masses to become addicts of Socialism. They use psychology to win the world.

Propaganda has always been a tool of the conqueror. In the age of radio, television and mass literacy, however, political warfare has become a primary weapon. The Communists, like the Nazis before them, use the strategy of terror to frighten the West into inaction, to promote class warfare and thus divide and conquer, to encourage neutrals to ride the Soviet wave of the future. The danger of the Russian Sputnik is not just that it means Moscow can probably put a missile on New York or, in the near future, aim atomic guns at Pittsburgh and Detroit from a platform in outer space. Sputnik is a symbol of successful socialism. All over the world, intellectuals and politicians—already half in love with Marx—are saying: "If Socialism can do such wonderful things in science, why not give it another chance with business? If Communism is efficient in the laboratory, let's try it in our factories. If Marxism can plan a sputnik and build so many splendid schools of engineering, we must have social planning and social engineering for every part of our society. Capitalism is obsolete."

Despite the record of American enterprise, millions of people—including some in this country—will believe that propaganda. Why? Because few Americans can articulate what it is we really stand for. We perform, but performance is not enough in an age of mass media. The Communists capture the slogans, manipulate the symbols, pervert the communications. The facts are on our side; but facts do not necessarily move men to action. More often, men are motivated by theories, by hopes and hatreds, by envy, fear or inspiration. The Communists have done their homework in the human subconscious. From superstitions and buried emotions and bedrock beliefs, they have mixed the weapons of fourth dimensional warfare.

They have put this knowledge to practical use. With blackmail and infiltration, they captured Czechoslovakia without firing a shot. That meant they got the Skoda Works intact. For thirty years Moscow trained many oriental Communists in its academies of political warfare. The alumni are today the rulers of Red China, the overlords of North Korea, the leaders of the Communists thrust into Southeast Asia. No Russian soldiers died to score these victories. In recent months, Communism has won elections in India, Indonesia and South America. It has penetrated Syria and Egypt. It is growing like a weed in the fertile fields of Africa. It controls powerful party machines in France and Italy. Communist political strategy, in short, is not an ivory tower experiment. It pays Moscow huge dividends in real estate, military bases, raw materials, manpower—and continuous trouble for the United States.

These things do not happen by accident. Communism is not just an idea; it is a power-technic. Behind the Iron Curtain, there are more than 100 schools and colleges of propaganda and subversion. Many Russians get a first-class education in math, physics, and foreign languages. But other Russians—and selected recruits from Asia, Africa and Latin America—receive professional training in conflict management and psychological tactics. We have the Harvard School of Business; they have the Lenin Institute of Political Warfare—for politics is the chief business of Communism.

It is imperative, of course, for this nation to win the contest of science, electronics and military hardware. Otherwise, the Soviets will blackmail us into surrender. But we cannot guarantee our security by simply catching up or staying ahead in science. After all, we were ahead of them for thirty-five years when, in spite of our technological superiority, they scored victories by irregular methods. We must create a shield of science to ward off a hot war; but we must also learn to make stronger moves on the ideological, political and economic squares of the Cold War chessboard.

To do that, we must raise the standards and improve the quality of education in economics and philosophy, American history, political science and foreign languages—as well as in science and engineering. And we must not be afraid of competition in the classroom, for young America in the next two decades is going to face the most ruthless competition the world has ever known.

American business cannot afford to be a mere spectator at this match for the future of mankind. The "managers" of Soviet society are all committed to agitation and politics. They are conflict minded. One cannot do business with Moscow, because Communists are not businessmen or statesmen. They are professional revolutionaries. Their foreign aid personnel are commandos; their artists are propaganda; their diplomats are spies; their economy is based on the cost accounting of the battlefield, where every resource is squandered in order to defeat the enemy. Since Communists have a combat mentality, one cannot reason with them. If we do not want to fight them—or surrender—we must learn to beat them in the precincts of the Middle East, in the lobbies of the United Nations, in our own classrooms and pulpits, and before the court of world opinion. Our own managers dare not be aloof to this challenge.

The Communist party, through the apparatus of total government, can mobilize the total resources of the Sino-Soviet Empire. Our limited government, by definition, cannot and should not compete with Moscow across the board. If it did, Washington would have to regulate business, control the press, police our schools and regiment our voluntary agencies. This means that, unless private institutions take over many areas of non-military defense, the ubiquitous thrust of Communist conflict management will be unchecked at crucial points.

Why should business be asked to serve? Primarily because our economic system is the crux of the whole struggle—and because, in a sense, this is the business society. Each year, a high percentage of our college graduates are recruited by business. Although there are extremely able men in other walks of life, our greatest reservoirs of inventive talent, drive, organizational vitality and brainpower lie in the world of industry, commerce and finance. Yet with certain notable exceptions, business leadership has not taken full responsibility for safeguarding the moral, intellectual and political framework which ensures its opportunities to make the economic system "pay off" for all America.

BUSINESSMEN CANNOT STAND ALOOF FROM POLITICS

This Republic was founded, of course, by bankers and lawyers, businessmen and a general. The frontier was "civilized" by business leaders who took an active part in the citizenship function. Today, however, many business leaders regard "politics" as beneath their dignity. Unfortunately, American civilization can be crippled—and even destroyed—by concepts which lead first to changes in the "climate of opinion" and, ultimately, to the hard facts of power politics.

If the "business society" is destroyed outright—or simply "withered" by politics and propaganda—business leadership has only itself to blame. After all, every great corporation has more than enough "surplus" to allow some of its best brains to stop thinking about production and sales and start thinking about national defense, citizenship education, foreign policy and economic philosophy. One way for business to attack these complex problems systematically—and with sophistication—would be to build an Academy of Industrial Statesmanship. This would be, in effect, the equivalent of the Harvard School of Advanced Management in the area of public affairs, national defense, citizenship training, and "theology" of American-style capitalism. Its purpose would be to produce articulate champions of freedom who could compete with the lobbyists for Marx in the never-ending battle to condition the climate of opinion.

Another place to improve the machinery of Ideological Defense might be with the lever of Corporate Philanthropy. American business now gives to good causes more than $500 million a year. Perhaps 5 per cent of that total should be used to pay a cultural life insurance premium on America, in the light of Krushchev's boast that our grandchildren will live in a Soviet Socialist America. Recent events suggest at least three more questions about private philanthropy:

1. If the Soviet challenge is not to result in eventual federal control of our schools, must not business give even more generously to improve the quality of American education?
2. Cannot business get much more for its charitable dollar by applying the same professional standards to giving away money that it does to making it in the first place?
3. Should not industry begin to reappraise its pattern of giving—shifting some investments from the portfolio of community welfare to the portfolio of national survival, allocating priorities, evaluating results and, in general, managing corporate largesse with the same discrimination and purpose that mark other phases of business operations?

GOALS FOR THE FUTURE: VICE PRESIDENTS OF PUBLIC AFFAIRS

Ultimately, it may be desirable—even necessary—for great corporations to appoint vice presidents of public affairs to spend full time on these matters. A waste of talent? At the beginning of the century, certain firms refused to adopt advertising. They perished. Now, most firms are hospitable to the subtler meanings of public relations. But beyond orthodox "public relations" lies the arena of public affairs in which the fate of American civilization may well be decided in the next decade.

THE ULTIMATE WEAPON

One word more. The ultimate weapon is neither science nor politics nor psychological warfare. The ultimate weapon is human courage—and faith in certain unalterable moral laws. Unfortunately, some people have forgotten the true meaning of America. We are already half afraid of the honorable word "revolution," although we are the true revolutionaries. It was an American Revolution that gave the world its finest revolutionary ideal—the notion that government is the servant, not the master, of the people. The Communists—who call us "reactionary"—have turned society back to the days of the Pharaohs. The monuments to "socialist progress" erected in the USSR—like the pyramids of ancient Egypt—have been built by slave labor.

WE MUST NOT PERISH THROUGH FAILURE TO RECRUIT OUR ELITE

On the other hand, we Americans have developed the most flexible, continually progressing society known to man. Our so-called "masses" already enjoy luxuries undreamed of in other parts of the world. Our unique type of capitalism—almost as different from European cartel-capitalism as it is from Socialism—produces more welfare and more social justice than Communist functionaries would even dare to imagine. But beyond that is the fact that we are truly free men. We have plenty and freedom, together. We must not let this remarkable experiment in human liberty and opportunity perish from want of courage, or lack of sophistication, or failure to meet the problem with the ablest human resources at our disposal. That is why these questions of national strategy and public affairs urgently require the attention of this audience.

It may be argued, of course, that the profession of medicine is a thing unto itself, that doctors have no business to "intervene" in the great affairs of state. The health of a democracy depends, however, to a large degree on the quality of its participating units. If doctors are to abdicate their responsibilities as citizens, why should not engineers and scientists, college professors and bankers take a similar view? In a sense, we are all professionals; and we are also all responsible for preserving our freedoms. If we are to safeguard a society in which political ethics make possible professional ethics, we dare not leave the formation of public opinion to demagogues. American doctors who are "too busy" to engage in public affairs—or do their homework—may find in the years to come that they may have to spend full time in some dismal underground, as did their colleagues in Nazi Germany or as men do today in Poland, Hungary and Czechoslovakia. Never before in history have the moral implications of the Hippocratic Oath been more urgently required, not alone for medicine, but for the whole free society.

The task may seem enormous; but the stakes

Special Article

The Management of the Unconscious Patient

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THE PROBLEM of the unconscious patient is one of grave concern to physicians due to the increasing rate of automobile accidents, alcohol consumption and the presence of barbiturates and other toxic substances in the home. This paper attempts to review the recent advances on this subject.

The unconscious patient is defined as one who is insensible, not conscious, or stuporous. The comatose patient is in a state of profound unconsciousness from which he cannot be aroused.

The classical differential diagnosis of coma is well outlined in *French's Differential Diagnosis*. The manifestation of coma may occur early in a disease, often as the presenting symptom; or, it may occur late in a disease with symptoms of the disease preceding the coma. Coma occurring as an early manifestation of pathologic changes may be due to cerebral vascular accidents, endogenous toxins, trauma, cerebral infections, cerebral tumors, acute drug intoxication, cerebral ischemia, hysteria and over-exposure to physical agents. Evidences of insensibility preceded by other signs of a disease complex may be due to severe systemic infections, infections of the central nervous system, tumors of the cerebrum, endogenous intoxication, chronic drug intoxication and cerebral anemia.

EXAMINATION OF THE UNCONSCIOUS PATIENT

The institution of proper therapy should not be delayed by questioning and deep investigation. It is of secondary importance to ascertain the happenings preceding the coma.

The history of the events surrounding the onset of the coma may establish the diagnosis. Routine interrogation includes questions as to whether or not the patient showed preexisting signs of convulsive disorders, trauma, alcoholism, diabetes, cardiovascular-renal disease, or drug ingestion. A brief description of the location, position and immediate surroundings of the patient at the time he was discovered may prove helpful. The possibility of attempted suicide should be considered.

The physical examination should begin with the most critical system—that of respiration. The depth, rate and rhythm of the respiratory cycle and whether or not the accessory muscles of respiration are being used should be noted. Shallow respirations are often indicative of barbiturate overdosage, while deep labored breathing is often properly associated with diabetic coma and acidosis. Cheyne-Stokes respiration is observed in patients with uremia, cardiac failure and chronic elevations of intracranial pressure. Stertorous breathing may be noted with laryngeal edema, trauma, pulmonary edema and partial obstruction of the airway.

The examiner next notes the pulse. A fast bounding pulse may indicate hyperpyrexia, vascular hypertension or hyperthyroidism. A slow bounding pulse is often associated with increased intracranial pressure or cerebral hemorrhage. Bradycardia keynotes early drug overdosage, severe brain damage and Stokes-Adams disease. Irregular pulse indicates cardiac abnormalities and possible cerebral emboli. A rapid, thready pulse suggests hemorrhagic shock, hyperinsulinism, adrenal insufficiency or impending cardiovascular failure or metabolic abnormalities.

A moment's attention to the odor of the patient's breath may help establish a diagnosis of acute alcoholism, but alcoholic breath does not rule out other more serious conditions such as trauma, uremia, diabetic acidosis or drug intoxication. Ammoniacal breath denotes uremia, and the sweet odor of acetone is found in diabetic acidosis. In poisoning, the characteristic odor of agents such as phenol, lysol or natural gas may be noted.

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Strategy (Continued)

are even higher. And let us remember that great events are always determined by minorities. Forty years ago Communism was confined to a rented room in Zurich, the brains of Lenin and the ambition of a few other outcasts. Less than 100 men made the American Revolution. For a time the whole future of this nation was carried in the will and heart of a lonely man who walked the winter lines at Valley Forge persuading his ragged countrymen not to quit and go home. There is more than enough talent in this one room to change the course of history. But time is impartial. In politics and war, as in business, time is only on that side which knows how to use it.

The systolic blood pressure should be recorded periodically during the examination and further determinations repeated until stable. Elevations in blood pressure may be due to carbon dioxide retention from respiratory obstruction, cerebral hemorrhage, lead poisoning, arteriosclerosis or uremia. A lowered blood pressure is often encountered in hemorrhage, barbiturate overdosage, insulin shock, hypovolemia and terminal congestive heart failure.

The temperature may be elevated in septicemia, pneumonia, severe diarrhea, cerebral abcess, cerebral hemorrhage, pontine tumors or hemorrhage, and heat stroke. Hypothermia may be due to exposure, peripheral circulatory collapse, barbiturate overdosage, morphine overdosage and acute alcoholic intoxication.

The general appearance of the patient's skin often holds the clue to the underlying disease. Cherry red mucous membranes may indicate carbon monoxide toxicity. Dusky skin keynotes peripheral circulatory collapse or asphyxia. Cyanosis denotes the presence of at least 5 grams of reduced hemoglobin per hundred milliliters of circulating blood, and suggests prolonged apnea, congenital heart disease, or the ingestion of nitrates or chlorates with the presence of methemoglobin. Jaundiced skin indicates biliary obstruction or liver disease. Petechiae are often found in meningococcemia, bacterial endocarditis, liver disease and severe malnutrition. Pallor is usually observed in patients that have a depleted blood volume or in the cachectic patient. Flushed skin indicates fever or alcohol toxicity. A warm dry skin is found in heat stroke, bromide poisoning and diabetic acidosis. Moist clammy skin denotes shock, whether from hemorrhage, hyperinsulinism, coronary artery occlusion or pulmonary infarction. Ecchymotic areas and marks denoting violence and trauma should be noted.

In the comatose patient the eye signs are often quite revealing. The size of the pupil may give an indication as to the cause of the coma. Bilateral constriction of the pupil is seen in pontine hemorrhage and morphine over dosage, while bilateral dilatation is seen in deep coma from other causes. Unilateral dilatation and fixation of the pupil and loss of the consensual and direct light reflex are indicative of compression of the oculomotor nerve or its nucleus. Loss of the direct light reflex alone may indicate blindness in that eye. The loss of the corneal and pupillary light reflex is indicative of the depth of coma. If the corneal reflex is absent on only one side, it suggests involvement of the trigeminal nerve or its brain stem pathways. Groups of cranial nerves are often involved in cases of cerebral hemorrhage.

The comatose patient should be examined for flaccid paralysis which signifies an acute hemiplegia. The reflexes are reduced and the muscle tone diminished. Evidences of previous cerebral disorder may be noted in the spasticity, increased muscle tone and the accentuated reflexes of the chronic hemiplegic patient.

The extremities are tested for pain reflexes to demonstrate hemianesthesia. The disorders that are most likely to provoke lateralizing neurologic signs are cerebral vascular accidents, abcesses, primary or metastatic tumors, epidural or subdural hemorrhage, cerebral laceration and contusion. The grimace elicited by firm supra-orbital pressure may point up any weakness or paralysis of the facial muscles, but it is well to remember that supra-orbital pressure exerts a reflex vagotonic effect on the heart and may precipitate cardiac asystole. Firm testicular pressure in the male will produce the same grimace with much less danger to the patient. Spirits of ammonia presented to the nose will distinguish between coma and hysterical reactions.

The presence of meningismus is difficult to demonstrate in the comatose patient, but may be of great diagnostic aid as it points to meningitis and subarachnoid hemorrhage.

Having evaluated the patient's physical findings and instituted emergency therapy, the indicated laboratory procedures are considered. In the absence of signs of increased intracranial pressure, a lumbar tap should be performed on all comatose patients when the diagnosis is in doubt. The cerebral spinal fluid pressure, appearance, cell count, gram stain, glucose level and protein level should be obtained. Purulent fluid indicates bacterial meningitis and the gram stain often demonstrates the offending organism. Bloody cerebral spinal fluid is indicative of spontaneous or traumatic subarachnoid hemorrhage or a traumatic tap. The urine is examined for glucose, casts, albumin, blood cells and specific gravity. The important blood chemical determinations include glucose, nonprotein nitrogen and carbon dioxide combining power. Radiologic studies should be obtained in cases of coma of traumatic origin if they are indicated.

THE TREATMENT OF THE UNCONSCIOUS PATIENT

The prime consideration in the management of the unconscious patient is the establishment and maintenance of an adequate airway. This precedes any other therapy, and provides the patient with the most important drug of all—oxygen. If the patient is obstructed, the immediate airway of choice is an endotracheal tube. It not only assures a patent airway, but with the cuff inflated, it prevents further aspiration of mucus or gastric contents and allows adequate tracheobronchial toilet. If the patient is unable to breathe for himself adequately, he should be assisted with intermittent positive pressure during inspiration. If the coma persists for more than 24 hours, an elective tracheostomy should be performed to insure an adequate airway without laryngeal edema from the endotracheal catheter. Suction available at the bedside allows frequent tracheobronchial toilets to be effective in combatting retained secretions.

The patient may be given additional oxygen, but in all cases of coma except those due to carbon monoxide poisoning, room air is sufficient if an adequate airway has been established. The addition of carbon dioxide to the atmosphere is not indicated, and usually proves to be deleterious. Humidity must be controlled to prevent drying of the bronchial tree with resultant thickening of the bronchial secretions. The temperature of the inspired air should be maintained relatively constant (68 F. to 80 F.) and the relative humidity high (98 to 100 per cent). This may be accomplished by the use of an oxygen tent which allows the addition of water vapor to an atmosphere regulated to maintain a constant temperature. If a tracheostomy tube is in place, it is important that humidity be added to the inspired air, since normally the air that reaches the bifurcation of the trachea, having been warmed and humidified by the upper respiratory tract, is about 98 F. and 98 per cent saturated with water vapor. Air inspired through a tracheostomy reaches the carina at about room temperature and room humidity.

Intravenous fluids are of great value in preventing and treating dehydration. Patients should be given their indicated requirements intravenously every 24 hours. The oliguric patient should receive 1,000 milliliters of 5 per cent glucose in water, containing vitamin C and vitamin B complex, per square meter of body area and an additional 1,000 milliliters plus a volume of 5 per cent glucose in water equivalent to the urinary output during the preceding 24 hours.

In prolonged coma, feeding of a high protein diet through a nasogastric polyethlene catheter will provide adequate caloric intake. Polyethylene tubing is used rather than rubber since it is less irritating and has not been reported to cause the formation of tracheo-esophageal fistulae. The feeding should be administered continuously and slowly to prevent gastric dilatation and possible regurgitation with aspiration into the tracheal-bronchial tree.

Shock should be treated with whole blood if due to hemorrhage or hypovolemia. The patient may safely be transfused until his blood pressure is within 10 per cent of the normal value. Vasopressor drugs may prove to be of great value in maintaining a blood pressure sufficient to carry oxygen to the tissues. Methoxamine hydrochloride (Vasoxyl®) in a dose of 10 milligrams intravenously or intramuscularly will usually afford the desired effect in two to three minutes, and may be repeated as needed to maintain the blood pressure. It should be remembered that subcutaneous and intramuscular drugs are poorly absorbed by patients in shock. Norepinephrine (Levophed®) 1:200,000 solution intravenously is a powerful vasopressor, but should be used cautiously since necrosis following infiltration of tissues with this solution has been reported. Drugs should be used as an adjunct only to treat hypotension until such time as whole blood or plasma expanders may be administered. Specifically, hypotension is best corrected physiologically rather than pharmacologically.

In chronically ill, debilitated patients or in patients in whom adrenal crisis is present, intravenous hydrocortisone is indicated.

The patient should be positioned and turned frequently every two or three hours to prevent decubiti, and to aid in postural drainage of the respiratory tree.

Infections are treated as they occur. There is recent evidence to show that the incidence of infections in the comatose patient is not reduced by prophylactic antibiotics. Therapy should be instituted as soon as signs of infection are manifest and is guided by the proper cultures and sensitivity studies.

Gastric lavage is of value only when patients have been known to have ingested large quantities of drugs in the preceding four hours. Twenty grams of activated charcoal should be added through the tube in cases of recent barbiturate ingestion. The universal antidote composed of magnesium oxide one part, tannic acid one part, and activated charcoal two parts, may also be administered by the gastric tube. Drugs should not be given to increase peristalsis.

Nalorphine hydrochloride, 5 milligrams, or levallorphan tartrate, 1 milligram, may be given in cases of morphine or meperidine hydrochloride (Demerol®) overdosage, and the initial dose may be repeated cautiously as indicated. These drugs will not arouse the patient, but should produce increased respiratory movements. Nalorphine hydrochloride and levallorphan tartrate may cause respiratory depression and are not to be used indiscriminately.

Analeptic drugs such as nikethamide, caffeine, sodium benzoate, amphetamine sulfate and pentamethylentetrazol are of no value in the treatment of coma. They merely increase the oxygen demand in a patient already deficient in oxygen, and may produce convulsions which can, through oxygen deprivation, cause severe brain damage and even death.

The patient's urinary bladder should be catheterized and placed on continuous drainage. The catheter is kept irrigated every three to four hours with sterile saline solution to insure proper drainage, and the urinary output recorded. A diet low in phosphorous may given in addition to oral aluminum hydroxide gels to prevent the formation of phosphate stones in the genito-urinary tract.

Bowel function is best maintained by mild laxatives and enemas as indicated. Care is taken to prevent fecal impaction.

In cases of drug intoxication, there is some value to be derived from dialysis with an artificial kidney. Controlled studies show that 4 per cent of phenobarbital ingested was cleared by the kidneys alone in two and one half hours, and this figure was increased to 66 per cent in two and one half hours with the aid of an artificial kidney. Amytal shows 0.5 per cent excretion by the kidneys alone, and 18 per cent when aided by dialysis.

The prognosis of the comatose patient grows worse as the coma continues. The patient with a direct head injury who is comatose for less than one week statistically has a good chance for near complete recovery of cerebral function. A patient comatose for longer than one week carries a more guarded prognosis. The depth of coma should be evaluated periodically. Eye signs, deep tendon reflexes, and corneal reflexes are all important signs. There is no need to present the patient with a series of painful and traumatic stimuli.

Nystagmus produced by caloric stimulation in the ear or rapid passive movement of the head shows that these brain stem reflexes are intact. These signs may also be used to follow the deeply comatose patient as obtundation of these reflexes show deep coma and are often indicative of severe brain damage.

The electroencephalograph shows a generalized suppression of all organized cortical activity, and may be used to estimate the depth of coma as well as to compare the relative depth of coma from time to time. The electroencephalograph is of little prognostic value.

SUMMARY

The general approach to the comatose patient has been reviewed considering the differential diagnosis, the clinical approach to diagnosis and the therapeutic measures which are of value in the treatment of the comatose patient.

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AMA PLANS CIVIL DEFENSE CONFERENCE IN NOVEMBER

More than 175 physicians and others interested in civil defense will gather November 8-9 in Chicago for the ninth annual County Medical Societies Civil Defense Conference. The two-day meeting at the Morrison Hotel, Chicago, is being planned by the AMA's Council on National Defense. Dr. F. J. L. Blasingame, executive vice president, will welcome the conferees on behalf of the American Medical Association, and Dr. Gunnar Gundersen, AMA president, will speak on "The Profession's Responsibilities in Civil Defense." Officials of the newly-created Office of Civil and Defense Mobilization will report on the expanding role of the federal government's defense program and the medical and health aspects of civil defense as they pertain to the new program.

As in past years, the group will divide up into workshop sessions to consider various phases of civil defense: Organization and training; reception, evacuation and emergency care; hospital disaster planning; supplies, transportation and communication. In an effort to promote test operations dealing with simulated disasters, the program will feature reports on several field tests conducted this year. "Test Exercise Star"—based on a mock earthquake of severe intensity—was conducted by the Alameda-Contra Costa (California) Medical Association in cooperation with local civil and military authorities. "Operation Prep Pitt"—dealing with a theoretical jet airplane crash into the Pitt Fieldhouse—was conducted by the Allegheny County (Pennsylvania) Medical Society in cooperation with local authorities. "Operation AFTA"—based on a simulated airplane crash on the Tulane University campus—was sponsored by the Committee on Medical Education for National Defense (MEND) of the Tulane School of Medicine to provide a realistic situation for the instruction of medical students in the principles of disaster medicine.

BOOZE BLACKS OUT THE DECIBELS

Science now knows why cocktail party talk frequently is so unintelligible.

A recent study indicates that if you can't hear the people it may be due to the alcohol (amount of it, that is) that you are drinking.

Temporary impairment of hearing is one of the effects alcohol has on the body, according to a report in the August 30 *Journal of the American Medical Association.*

The report, by Rollo N. Harger, Ph.D., Indianapolis, is a chapter from a manual being prepared by the AMA committee on medicolegal problems. The manual deals with medical and legal procedures involved in the use of chemical tests for intoxication.

Dr. Harger shows that a higher tone intensity is necessary for a person to perceive a given tone or to differentiate between tones after he's been drinking. The difficulty arises because of the depressant effect of alcohol on the central nervous system.

Comments by investigators on

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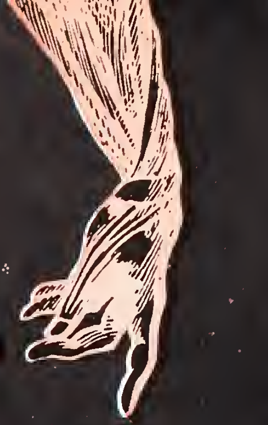

– the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

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Summary of four new published clinical studies:

Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1, 2, 5, 6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL
American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

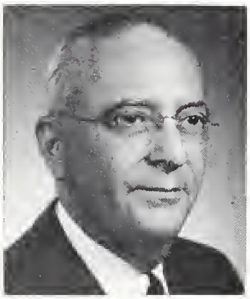
"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

President's Page

Our profession has weathered another session of Congress relatively unscathed.

But how long our luck is going to hold out, I don't know!

I do know that to have held the Forand bill up this year was no mean accomplishment. But it took the combined efforts of all segments of medicine. And already we know that it and the many bills modeled after it will be back to haunt us next session. This bill, as you well know, would have given free hospital and surgical care to social security recipients.



Only through the continued cooperation of our allies in the Joint Council to Improve the Health Care of the Aged can we rebuild our forces for the next battle.

Actually our allies go beyond the American Hospital Association, the American Dental Association and the American Nursing Home Association in the Joint Council with the AMA. They include the entire health insurance industry, including the Blue plans and the commercial carriers.

Also our allies even extend to the legislative halls. While we have known enemies there, we also have numerous friends. Obviously the majority of the lawmakers did not favor a change in the practice of medicine at this time. Despite the terrific pressure applied by labor leaders, they bottled up the Forand bill that undoubtedly would have brought socialized medicine much closer to our doors.

This is not to say that the friendly legislators can or will help preserve the status quo forever—or even next year.

What I want to say is: Let's not sell ourselves short!

We do have friends! Friends among the legislators, and friends among the businessmen. Let's keep working just as we have been doing.

What we have to do is concentrate on keeping our profession and the practice of medicine what it is today. After all when you hear someone discuss his own doctor, he always speaks of him in very glowing terms (that all important doctor-patient relationship). I don't believe our profession has changed through the years, rather it is the times that have changed.

We have to realize that the United States is the last stronghold of the free enterprise system left in the world. We doctors are bound to suffer encroachments because our entire nation and its economy is suffering them.

Before I stop, I want to thank all of the doctors who have helped so much the last few months in writing and contacting our Missouri lawmakers. Their labors were not in vain!

EDITORIALS

Medical Schools' Money Need Is Acute

The time for pitching in to help out our Medical Schools has rolled around again.

This month marks the start of the annual American Medical Education Foundation (AMEF) drive. As you already know, this is the physicians' own plan for helping solve the money problem facing our Medical Schools today.

We all know if some solution can't be found through voluntary and private means, more eyes will be looking toward Washington for more federal aid. More federal aid only means more federal control and intervention into the practice of medicine.

IT'S FOR OUR PROFESSION

It is up to us, the practicing physicians, to come to the aid of our alma maters that have provided us with the training and fitted us for the profession that we all love so well.

For these reasons Missouri is switching to a personal contact type of AMEF campaign this year.

Missouri's three medical schools already receive AMEF grants all out of proportion to the money contributed to AMEF by Missouri doctors. Last year the three schools received $34,565 from AMEF, compared with the $9,126 given to AMEF by our doctors.

While last year's total of $9,1226 was higher than the $7,484 raised in 1956, the number of contributors dropped slightly from 230 to 223.

Statistically this means the average gift was larger last year. It was $41 in 1957, compared to $33 in 1956.

LIST OF GIVERS IS SHORT

But looking deeper, it means that just about one out of every 20 physicians in Missouri contributed financially through AMEF to the continuing betterment of his own profession. Many doctors, of course, are giving directly to their schools.

Other states have turned to the assessment approach. Missouri, however, has rejected this approach, leaving it up to the individual physician.

This year we naturally still will leave it up to you to decide.

But, we hope that a personal contact by your local AMEF Committee member will provide that little jog we all need to part with some of our money.

YOU DECIDE WHERE IT GOES

As in the past, you can earmark your gift for your own school or any other of your choice, or just leave it unrestricted. Your local worker also will have a pledge card in case you wish to handle it in that fashion. AMEF contributions, of course, are tax deductible.

That last statement concerning the tax deductability of the gift is just an indication of the changing world we find ourselves in. It seems unfortunate to have to put a commercial twist to talk of a gift or pledge for our medical schools.

But the economic climate of the nation has changed so from the time many of us went through medical school. Today the government and its involved tax structure make it imperative to think about these things. This also is an appropriate time of the year to consider this aspect because as the 1958 tax deadline approaches most of us are starting to evaluate just where we stand for the year.

SCHOOLS' PROBLEMS SOAR

Ignoring the philosophical aspect of the problem, our schools face very real problems. Building costs keep climbing, almost as if they were geared to the growing population. It appears to be an endless cycle—and one that is accelerated by scientific progress and the growing span of man's life.

Medical education, however, remains constant. It is one of the basic educational needs in the world today and will always remain so. Special branches of engineering, electronics and chemistry may become over-shadowed by others, but medicine will continue as a basic need. Only through the health of the people can the other arts and sciences flourish.

For these reasons the American Medical Education Foundation was established in 1951 to help the medical schools weather their financial problems. Since then it has collected $6,741,924 from the physicians, a sizable sum. The trouble is that the annual deficit approaches the 10-million-dollar mark.

HELP FROM BUSINESS FRIENDS

Businessmen and firms also are helping whittle this down through their counterpart of the AMEF, the National Fund for Medical Education. But the burden of continuing our medical schools under the private enterprise system still rests squarely on us.

Possibly new approaches will have to be worked out in the future to finance a medical education. Since World War II, the schools' traditional sources of income—returns from endowments, tuitions, state funds and alumni support—have proved insufficient.

At the present, however, AMEF is giving us one positive and growing answer to our money shortage. So when you are contacted by your local AMEF man (or asked to serve as one), please give a favorable answer. In the event you aren't contacted, why don't you send your check in to me in care of the state association?

James P. Murphy, M.D., Chairman
AMEF Committee

Musings of the Field Secretary

On Sunday, August 17, the people of Lewis County and Canton community held a Dr. P. W. Jennings Day on the campus of Culver-Stockton College. This occasion served to express, in part, the depth of the esteem and appreciation for the fifty years Dr. Jennings has served the people of Lewis County and the Canton community. Some 650 friends of this elder medical statesman were on hand to honor him, on this, his day. Dr. Jennings began practice at Williamstown, Missouri, in the northwest corner of Lewis County, August 17, 1908. He moved to Canton in August of 1922 and has practiced there to date. Not only has he kept busy in the practice of medicine, but for some 32 years he has served as a member of the board of directors of Culver-Stockton College. He is a charter member of the Canton Kiwanis Club formed in 1924, its first president, and one of the two charter members now living.

Dr. Jennings greeted many friends.

Dr. Jennings was seated on the platform between his two daughters.

Dr. Jennings has been active in his local and state medical organizations during his many years of practice and has served as secretary of the Lewis-Clark-Scotland County Medical Society since it was chartered. The President of the Lewis-Clark-Scotland Society, Dr. J. R. Bridges, Kahoka, was on hand to help him celebrate August 17. Dr. Bridges will be 95 years of age this coming October and has been practicing medicine for 70 years. (He is still practicing.) Dr. Jennings was but 3 years old when Dr. Bridges began his practice.

Dr. J. R. Bridges, Kahoka, congratulates Dr. Jennings as Dr. Francka looks on.

This signal occasion for Dr. Jennings began with a free barbecue dinner at 12:30 p.m., to be followed by a variety of events. Among those on the program was Dr. W. F. Francka, President of the Missouri State Medical Association, who expressed the congratulations and well wishes of the membership of the Association to Dr. Jennings and his two daughters.

A "two-wheeler" took part in the "Passing Parade."

Many of those whose entry into this world was aided by the "good doctor" were present. Six members of one family, all grown, represented three occasions when Dr. Jennings had attended births in that family. On the first occasion a single birth, on the second occasion twins, and on the third trip, tripletts.

A unique feature of the program was termed "The Passing Parade." This was presented in three parts:

1. Farewell to Palo Pinto. Here we saw Dr. Jennings as a young hopeful, with suitcase in hand, walking down the main street in his home town, headed for the train to take him off to medical school.

(Continued on page 1124)

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News

W. J. Shaw, M.D., Fayette, was one of the two representatives of the American Medical Association serving as observers at the World Medical Association meeting in Copenhagen, Denmark, from August 15 to 20.

J. H. Holman, M.D., Unionville, who has given more than half a century of service as a physician to the people of Unionville, was honored on Sunday, August 31 by the citizens of that community.

"Total Support During Intra-cardiac Procedures" was the subject of a talk by **Kenneth K. Keown, M.D.**, Columbia, at the 1958 Annual Meeting of the Kentucky State Medical Association, in Louisville, September 23, 24, and 25.

D. M. Eubank, M.D., Raytown, attended a three-day course in prevention and management of athletic injuries conducted by the University of Colorado at the school's medical center in Denver.

A reception honoring **William H. Goodson, M.D.**, Liberty, on completion of fifty years service to residents of Clay County was held Sunday, September 28 at the Second Baptist Church in Liberty.

Among those recently returned from travel on the Continent are Dr. and Mrs. **Claude J. Hunt**, Kansas City. While in Brussels, Dr. Hunt attended meetings of the International College of Surgeons.

Norman D. Drey, M.D., St. Louis, and **Barrett L. Taussig**, M.D., St. Louis, of the Jewish Hospital Research Institute have received a $5,000 grant from the Upjohn Pharmaceutical Company for clinical studies in the use of Orinase. Other physicians associated in the research are Herman T. Blumenthal, **Michael M. Karl**, Robert Rubin and Jim Waterfield, all of St. Louis.

A memorial fund for **W. H. Zeigler**, M.D., Boonville, is being used to purchase two croupettes for the local hospital.

DEATHS

Horton, Ray B., M.D., North Kansas City, a graduate of the University of Budapest, 1924; member of the Clay County Medical Society; aged 59; died July 21.

Conrad, Robert W., M.D., St. Joseph, a graduate of George Washington University School of Medicine, 1943; member of the Buchanan County Medical Society; aged 41; died July 27.

Saferstein, T. Harry, M.D., St. Joseph, a graduate of Kansas University School of Medicine, 1930; member of the Buchanan County Medical Society; aged 52; died July 28.

Ziegler, William H., M.D., Boonville, a graduate of Northwestern University, 1921; member of the Cooper County Medical Society; aged 66; died August 3.

Phipps, George W., M.D., Caruthersville, a graduate of Rush Medical College, 1925; a member of Pemiscot County Medical Society; aged 58; died August 5.

Murray, John W., M.D., Warsaw, a graduate of Fort Worth School of Medicine, 1910; member of the Pettis County Medical Society; aged 78; died August 11.

Shahan, William E., M.D., St. Louis, a graduate of Washington University School of Medicine, 1904; member of St. Louis Medical Society; aged 82; died August 11.

VanDel, Dwight, T., M.D., Kansas City, a graduate of Rush Medical College, 1925; a member of Jackson County Medical Society; aged 58; died August 12.

Neilson, Charles H., M.D., St. Louis, a graduate of Rush Medical College, 1905; a member of the St. Louis Medical Society; aged 87; died August 13.

Durham, Silas L., M.D., Dearborn, a graduate of Tulane University, 1913; a member of Platte County Medical Society; aged 74; died August 14.

NEW MEMBERS

Beckman, Paul H., M.D., Houston. South Central Counties Medical Society.

Buie, Bruce R., M.D., 5801 Kingslee Drive, Hickman Mills. Jackson County Medical Society.

Gantner, George E., Jr., M.D., 1325 S. Grand Blvd., St. Louis 4. St. Louis Medical Society.

Gantz, John A., M.D., 7361 Zephyr Place, St. Louis 17. St. Louis Medical Society.

Glascock, Donald W., M.D., 122 W. North, Palmyra. Marion-Ralls-Shelby County Medical Society.

Gorrell, Ned B., M.D., 701 E. 63rd St., Kansas City. Jackson County Medical Society.

Holcomb, Cecil E., M.D., 117 N. Walnut, Steele. Pemiscot County Medical Society.

Lohrentz, Lois H., M.D., 1710 Independence, Kansas City. Jackson County Medical Society.

Simpson, Albert P., M.D., Springfield Medical Bldg., Springfield. Greene County Medical Society.

Smith, Dale C., M.D., 231 W. 47th St., Kansas City. Jackson County Medical Society.

Tice, Wayne K., M.D., 1915 Lake Drive, Independence. Jackson County Medical Society.

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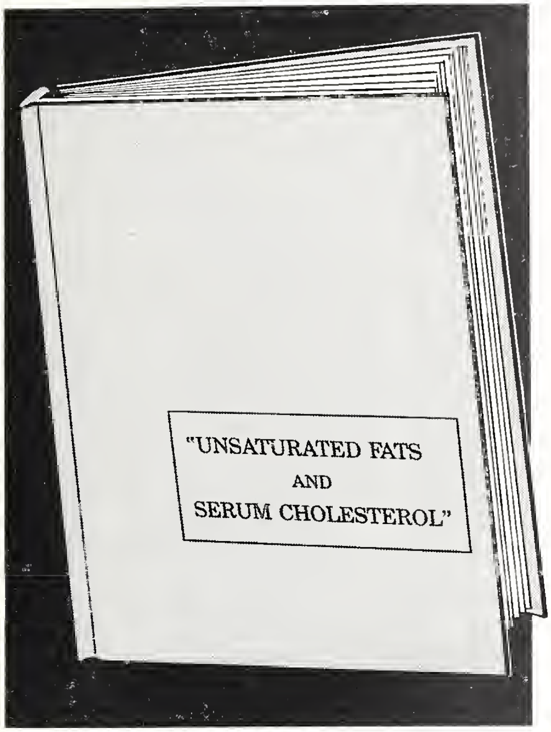

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golden light
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Each **TABLESPOONFUL** *of* **MAZOLA**

Provides approximately:

LINOLEIC ACID	**7.4 Gm.**
Sitosterols	130.0 mg.
Natural tocopherols	15.0 mg.
Cholesterol	0
Weight	14 Gm.
Calories	126

Total unsaturated Fatty Acids—85%

TYPICAL AMOUNTS PER DIET

For a 3600 calorie diet	3 Tbsp.
For a 3000 calorie diet	2.5 Tbsp.
For a 2000 calorie diet	1.5 Tbsp.

MAGP Scientific Assembly

The Missouri Academy of General Practice will hold its 10th Annual Scientific Assembly on October 18 and 19 at the Chase Hotel, St. Louis. This is acceptable for ten hours category I postgraduate credit for AAGP members.

PROGRAM

Friday, October 17, Daylight Saving Time

7:00 p.m. Business session with Board of Trustees.

Saturday, October 18, Daylight Saving Time

9:00 a.m. Business Session.

SYMPOSIUM ON OFFICE PROCEDURES

10:15 a.m. Office Immunizations, C. Read Boles, M.D., Washington University, St. Louis.

10:35 a.m. Repair of Face Lacerations in the Office, F. X. Paletta, M.D., St. Louis University, St. Louis.

10:55 a.m. Office Evaluation of Chronic Lung Disease, Paul Seebohm, M.D., University of Iowa, Iowa City.

11:15 a.m. Sigmoidoscopic Examination in the Office, Sim F. Beam, M.D., Washington University, St. Louis.

11:35 a.m. Panel Discussion.

12:00 noon Lunch and Visit Exhibits.

SYMPOSIUM ON GYNECOLOGY

1:30 p.m. The Value of the Papanicolaou Smear in the Diagnosis of Early Carcinoma of the Cervix, J. S. Roden, M.D., University of Missouri, Columbia.

1:50 p.m. Surgical Management of Carcinoma of the Cervix, Joseph W. Kelso, M.D., University of Oklahoma, Oklahoma City.

2:10 p.m. Congenital Anomalies of the Female Genital Tract, Charles R. Gulick, M.D., Washington University, St. Louis.

2:30 p.m. Therapy of Vulvar Disease, H. Close Hesseltine, M.D., University of Chicago, Chicago.

2:50 p.m. Visit Exhibits.

3:20 p.m. Multiple Pregnancy Wastage—Congenital Causes and Corrective Treatment, William H. Masters, M.D., Washington University, St. Louis.

3:40 p.m. Troublesome Problems in a Gynecologist's Office, Joseph W. Kelso, M.D.

4:00 p.m. The Diagnosis and Management of Pelvic Endometriosis, Joseph A. Hardy, M.D., St. Louis University, St. Louis.

4:20 p.m. Cervical Disease—Role of Surgery, H. Close Hesseltine, M.D.

4:40 p.m. Panel Discussion.

7:30 p.m. President's Installation Banquet.
Speaker: Dr. Morris Fishbein, Chicago.

Sunday, October 19, Daylight Saving Time

SYMPOSIUM ON MEDICINE

9:00 a.m. Fever of Undetermined Origin, Joseph V. Finnegan, M.D., St. Louis University, St. Louis.

9:20 a.m. Special Technics in the Diagnosis of Thoracic Disease, Bruce E. Douglass, M.D., Mayo Clinic, Rochester.

9:40 a.m. Cardiac Emergencies, Thomas M. Durant, M.D., Temple University, Philadelphia.

10:00 a.m. Problems in Adolescent Growth and Sex Development, Cyril M. MacBryde, M.D., Washington University, St. Louis.

10:20 a.m. Visit Exhibits.

10:50 a.m. The Caprices of Bronchogenic Carcinoma, Bruce E. Douglass, M.D.

11:10 a.m. The Diagnosis and Management of Pericardial Disease, Thomas M. Durant, M.D.

11:30 a.m. Panel Discussion.

12:00 noon Lunch and Visit Exhibits.

SYMPOSIUM ON PEDIATRICS

1:30 p.m. Chronic Lung Disease in Childhood, Katharine Dodd, M.D., University of Louisville, Louisville.

1:50 p.m. Current Practices in Infant Feeding, Robert L. Jackson, M.D., University of Missouri, Columbia.

2:10 p.m. Adolescence. Metabolic and Nutritional Studies, Joseph A. Johnston, M.D., Henry Ford Hospital, Detroit.

2:30 p.m. Visit Exhibits.

3:00 p.m. Prolonged Fever in Childhood, Katharine Dodd, M.D.

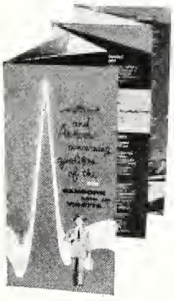
3:20 p.m. The Tonsil and Adenoid Question, Joseph A. Johnston, M.D.

3:40 p.m. The Cerebral Palsied Child, Peter G. Danis, M.D., St. Louis University, St. Louis.

4:00 p.m. Panel Discussion.

ANSWERING DOCTORS' QUESTIONS . . .

about the SANBORN Model 300 Visette electrocardiograph



The text and pictures in this new 12-page booklet tell the story of the Sanborn Visette ECG in a unique way: *as answers to actual questions asked by hundreds of doctors* — at medical conventions, in correspondence, in conversations with Sanborn people. Many of these questions are probably ones you might also ask, to get a clear picture of just how a Visette might fit into *your own* practice and diagnostic procedures. Here are facts *you* can use, presented from the *doctor's* point of view.

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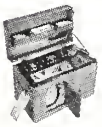

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From the Medical Schools

UNIVERSITY OF MISSOURI

Medical Center Report

The following information has been compiled by the Medical Record Department of the University of Missouri Medical Center regarding admissions to the various hospital services and out-patient department visits for the period July 1, 1957 through June 30, 1958.

	Medicine	*Surgery*	*Pediatrics*	*Ob & Gyn*	*Total*
Hospital Admissions	962	960	708	865	3,495
Hospital Discharges	904	991	712	854	3,461
Hospital Days	14,635	17,217	12,480	7,460	51,797
Out-patient Dept. Visits	5,227	6,773	4,314	4,550	20,864

There were also 2,041 out-patient department visits during the period for Physical Therapy and 1,166 for Radiotherapy which are not included in the above total.

Trips and Talks

Dr. T. D. Luckey, professor and chairman of the Department of Biochemistry, attended a Microbiology Congress held in Stockholm, Sweden, from August 3 to 9, 1958 and participated in a Symposium on "Germfree Animals" on August 6.

Dr. A. A. White, assistant professor of biochemistry, attended a Tissue Culture Course given at the University of Colorado School of Medicine in Denver, Colorado, from July 7 to August 1, 1958.

Dr. C. Thorpe Ray, professor and chairman of the Department of Medicine, attended a meeting of the Franklin-Gasconade-Warren County Medical Society held in Washington, Missouri, on August 12 where he spoke to the group on "Current Concepts of Digitalis Therapy."

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology attended the VII International Congress of Microbiology in Stockholm, Sweden, from August 3 through August 9, 1958, where he presented a paper.

Dr. M. H. Ivey, assistant professor of microbiology, attended the meeting of the American Institute of Biological Sciences in Bloomington, Indiana, on August 24 through 30, 1958.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, and Dr. C. K. Leeper, associate professor of pathology, attended a meeting of the Missouri Society of Pathologists held at Arrow-Head Hall, Lake of the Ozarks, on July 20 for the purposes of discussing exfoliative cytology and the educational program for the physician in Missouri.

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, attended the meeting of the Rocky Mountain Radiological Society held in Denver, Colorado, on August 15 and 16 where he presented a paper entitled "The Diagnostic Significance of Destructive Changes in Bone" on the 15th and participated in a diagnostic panel on the 16th.

WASHINGTON UNIVERSITY

Attend Scientific Congresses

Dr. Carl F. Cori, professor and head of the department of biological chemistry at Washington University School of Medicine, presided as president of the 4th International Biochemistry Congress September 1-9 in Vienna. During Congress sessions, scientific research at Washington University was reported by Dr. Robert M. Burton, assistant professor of pharmacology; Dr. Barry Commoner, professor of plant physiology; Dr. David Lipkin, professor of chemistry, and Dr. Sol Sherry, professor of medicine. Dr. Burton discussed recent chemical evidence supporting one theory of how tranquilizers produce their effect in the body. Dr. Sherry reported biochemical studies on plasmin and plasminogen. Dr. Commoner, who was invited to speak at a series of Congress symposia, discussed research on the processes involved in reproduction of tobacco mosaic virus.

At the 3rd Annual Neuro-Chemical Symposium, August 25-29 in Strasbourg, France, papers were presented by Dr. Edward Dempsey, professor and head of the department of anatomy and dean of the Medical School, and by Dr. Eli Robins, associate professor of psychiatry. Dr. Dempsey discussed electron microscopic studies on the neurophil. Dr. Robins reported a biochemical study of changes in the nerve cell body after severance of the nerve.

Dr. Hugh Chaplin, assistant professor of medicine and preventive medicine, discussed Washington University research at the 7th Congress of the International Society of Blood Transfusion September 3-6 in Rome. He, Dr. William Harrington, associate professor of medicine, and Dr. Carl V. Moore, Busch professor and chairman of the department of medicine, presented research papers during sessions of the 7th Congress of the International Society of Hematology September 7-13 in Rome. Dr. Harrington also reported research at the International Society of Allergology meetings September 15-20 in Paris. He and Dr. Moore were among United States' scientists delegated by the U. S. State Department to speak on research in their particular fields of interest at a series of meetings September 22-25 in Angora, Turkey.

Loan Approved

Approval of a federal loan of $1,400,000 to Washington University for a dormitory on the Medical School campus was announced in August. The money is being lent by the Community Facilities Administration, a division of the Housing and Home Finance Agency. The announcement was made by Senator Thomas C. Hennings, Jr., Missouri. The university will provide $742,000 for the dormitory, a 10-story building to be built on Scott avenue east of Euclid. It will accommodate 295 students.

New Appointments

Dr. Elwyn J. Anthony, Washington University's first Blanche F. Ittleson professor of child psychiatry, arrived in St. Louis from London in August to begin planning a comprehensive program of treatment, research and instruction in child psychiatry at the Medical School. The program is believed to be the first of its kind in the United States and Dr. Anthony holds the first endowed chair of child psychiatry ever to be established. He has general supervision of the Child Guidance Clinic, the Child Evaluation Clinic, the out-

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patient psychiatric unit at St. Louis Children's Hospital and the newly established 20-bed in-patient psychiatric treatment center for children at Jewish Hospital. Dr. Anthony, his wife and their four children are living in University City.

Grant

Dr. Oliver H. Lowry, professor and head of the department of pharmacology, has been awarded a three-year renewal grant of $48,000 by the National Science Foundation. The grant supports a research project directed by Dr. Helen Burch, associate professor of pharmacology. Metabolic processes governed by riboflavin enzymes and the effects on animals of a diet deficient in riboflavin are being studied.

SAINT LOUIS UNIVERSITY

Forthcoming Programs

Members of the Missouri State Medical Association are invited to attend the fall series of special scientific programs sponsored by the various departments of the Saint Louis University School of Medicine in conjunction with the twenty-fifth anniversary of Firmin Desloge Hospital.

The Department of Pediatrics will present a two day symposium on the "Newborn" October 15-16. Members of the Cardinal Glennon Memorial Hospital staff will participate in the scientific sessions. Topics to be covered will include "Neonatal Nutrition," "Principles of Fluid and Electrolyte Balance in the Newborn," "Respiratory Diseases in the Newborn," panel on "Prematurity," "Surgery During the Neonatal Period," symposium on "Neonatal Infections," and a panel on "Hemolytic Disease of the Newborn." Participants in the symposium will include: Dr. James P. King, Director, Department of Pediatrics; Dr. Peter G. Danis, professor of clinical pediatrics; Dr. J. Eugene Lewis, Jr., associate professor of surgery and other faculty members. The all day sessions will be held in Miller Hall, Desloge Hospital.

The final program in the series of ten scientific sessions will be an inter-departmental program to be held November 19. A morning program titled "The Private Practitioner's Office as a Cancer Detection Center" and an afternoon program titled "Management of Home Emergencies" will feature fourteen members of the School of Medicine faculty. Serving as moderators will be Dr. C. Rollins Hanlon, Director, Department of Surgery, and Dr. William A. Knight, Jr., associate professor of internal medicine. Further information on the programs may be received from Dr. William H. Vogt, Jr., Chairman, Firmin Desloge Hospital Jubilee. The programs have been approved for Category I credit by the American Academy of General Practice.

Appointments

Two departmental directors arrived at the Saint Louis University School of Medicine in late summer to assume new duties. Dr. Elijah Adams, formerly associate professor of pharmacology at the New York University College of Medicine, assumed directorship of the department of pharmacology. His research laboratories are located at the School of Medicine.

Dr. Rene Wegria, formerly associate professor of medicine at Columbia University College of Physicians and Surgeons, has assumed full-time directorship of the Department of Internal Medicine, which maintains offices and research laboratories at Firmin Desloge Hospital.

Research Fellowships

Dr. Daniel I. Mullally has received a one year special traineeship award of $7,500 from the National Institute of Neurological Diseases and Blindness of the National Institutes of Health and has started training in the School of Medicine Department of Microbiology. He was awarded his M.D. Degree from Harvard University in 1955 and interned at St. Louis City Hospital. During Dr. Mullally's internship he contracted polio and was confined to a wheel chair. This personal experience stimulated his interest in virus infections. At Saint Louis University he will receive research training in virology, immunology and general microbiology with particular emphasis upon the use of tissue culture technics.

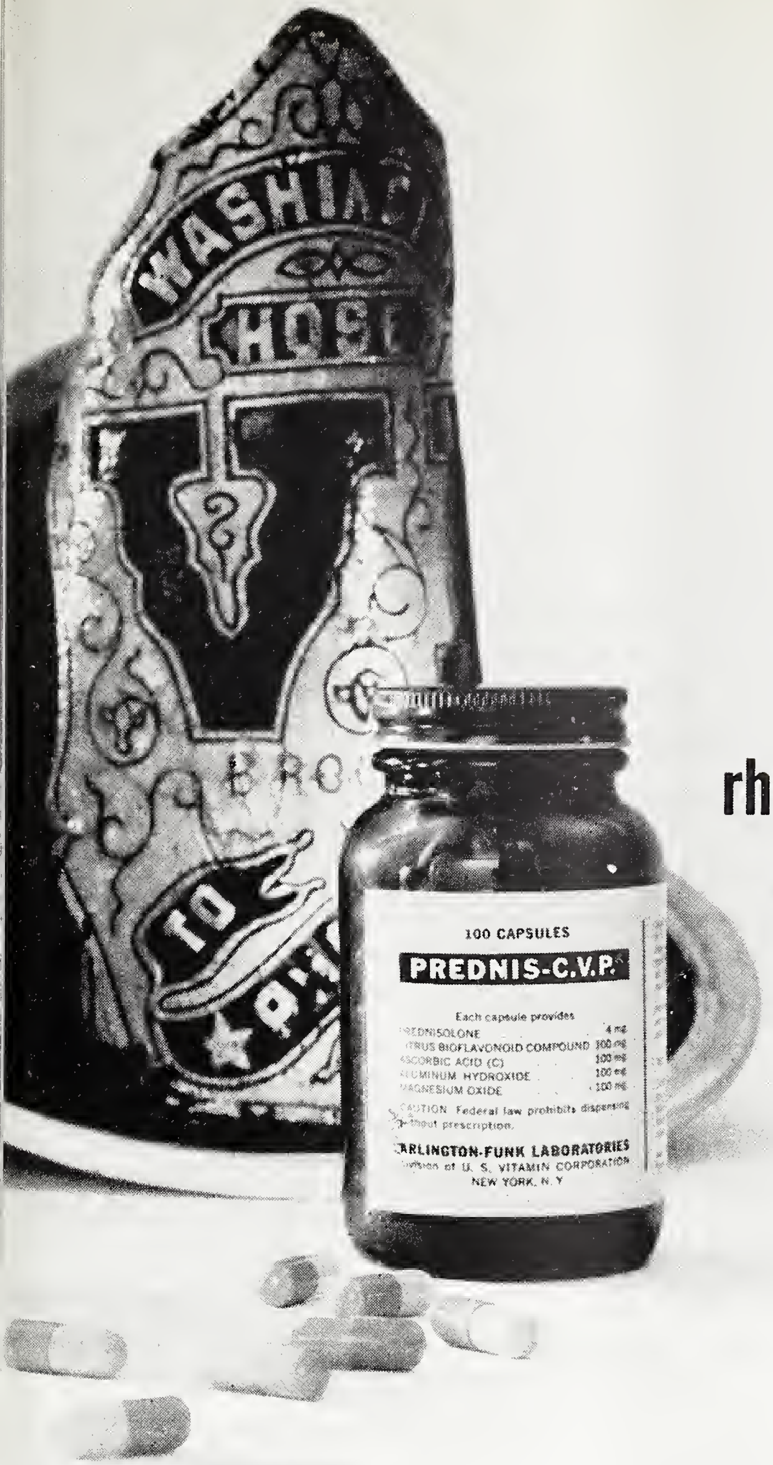
Dr. David Lozano-Elizondo, assistant in ophthalmology, has been appointed a special fellow to the Retina Service of the Massachusetts Eye and Ear Infirmary, which is the Ophthalmic Teaching Hospital of Harvard Medical School. Dr. Lozano served as resident in the Saint Mary's Group of Hospitals.

Twenty-four students at the School of Medicine were awarded 1958 summer fellowships and were engaged in research projects ranging from eight to twelve weeks of study during the summer months. The summer research was supported by awards from United States Public Health Service, Lederle Laboratories, Cancer Research Fund, Tobacco Industry, National Foundation for Infantile Paralysis, Allergy Foundation of America, Children's Research Foundation and Saint Louis University Biochemistry Committee on Grants. Award winners were: Peter P. Kozak, Joseph L. Allain, Jr., William Fogarty, Edward F. Moroney, Sam A. Nigro, Joseph A. Reinkemeyer, Duane Hagen, Joseph E. Safko, Paul O. Stromsdorfer, Peter J. Tegtmeyer, G. William Parker, Van N. Polglase, Joseph A. Swope, Charles Wieland, Eric R. Anders, Rafael Correa-Coronas, Roger A. Ewald, Philip G. Clarke, Max M. Inman, Edward J. O'Connel, Leslie H. Cronau, Jr., Robert R. MacDonald, Jr., Henry N. Wellman and Margaret M. Francis.

The summer fellowships are awarded annually to provide an opportunity for the medical students to have first hand experience with research problems, to deepen their grasp of medical science and help medical students decide whether they might like research as a career. The summer fellowships do not substitute for any of the regular school requirements.

Travel

Two members of the Microbiology Department spent the late summer as guest investigators in research laboratories on the East and West coasts. Dr. Norman E. Melechen, senior instructor in microbiology, was engaged in research laboratories of the Long Island Biological Association at Cold Spring Harbor, New York. Dr. Valentin Bonifas, associate professor of microbiology, spent a month as guest investigator at the Cal Tech. Institute of Technology, Pasadena, Calif., to study the cultivation of isolated human cells by special technics. Dr. Bonifas, formerly head of the virus laboratory of the State Institute of Hygiene in Geneva, Switzerland, came to Saint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Louis University a year ago as research associate in the department of microbiology.

Dr. William F. Melick, assistant professor of clinical urology, and director, resident staff in urology, participated in a panel on "Etiology of Bladder Cancer" before the Seventh International Cancer Congress held in London, England, in July.

Dr. Robert D. Mattis, associate professor of clinical ophthalmology and executive secretary of the Department, served as a delegate to the Eighteenth International Congress of Ophthalmology held in Brussels September 7-12. Following the Congress, he planned to visit medical schools in Germany, Switzerland. Austria, Italy and England.

TUBERCULOSIS ABSTRACT

Resection for Pulmonary Tuberculosis

A Four-Year Follow-up Study, D. Bonta Hiscoe, M.D., William F. Thompson, M.D., Thomas J. Enright, M.D., and Harrison Black, M.D., *The New England Journal of Medicine*, May 1, 1958.

During the past decade, the use of antituberculous chemotherapy in conjunction with pulmonary resection has revolutionized the treatment of pulmonary tuberculosis. As with any chronic disease, an evaluation of results can be considered significant only if a reasonable time has elapsed after treatment. Although there are exceptions, the majority of cases reported have been followed for a very short period. As a result the validity of the conclusions may be open to question. More protracted studies have shown that late reactivations after resection are not uncommon.

In the present study only cases which were followed for a minimum of four years have been considered. To adhere to this requirement it has been necessary to consider patients treated in an era when the number of antituberculous drugs was limited. and their proper use not well understood. In addition, previous collapse therapy was employed more frequently among these patients than in current candidates for resection.

General Statistics. All cases in which pulmonary resection was performed at the Veterans Administration Hospital, Rutland Heights, Massachusetts, between January 1, 1949 and January 1, 1953, were reviewed. During this period 93 resections were performed on 89 patients. Nine cases were excluded from the study either because of inadequate information, or because bilateral resections had been done. Thus, the study group comprises 80 patients who underwent unilateral pulmonary resection. They have been followed for an average of five years and nine months (range of four years to seven years and ten months).

Age, Sex and Race. This group of patients is obviously not representative of the tuberculous population in general because of the requirements for admission to a Veterans Administration hospital. The great majority of these patients were young white males, between the ages of twenty and forty years.

Type of Disease. Many of the patients at the time of operation could not be classified as optimal candidates for surgery by contemporary standards. Of the 80 patients who underwent resection, 42 had bilateral involvement, the contralateral disease being stable. Fifty-four resections were done for open lesions, and 12 for closed lesions, and in 14 the status of the cavity was indeterminate. More significant, however, is the fact that 62 of the 80 patients (77 per cent) had *positive sputum* either by culture or by smear within three months before operation.

Indications. Fifty-seven per cent of these patients were operated on for *stable residual lesions.* A lesion was placed in this category if no change was noted for three months or more on serial roentgenograms. A relatively high proportion (23 per cent) underwent resection for what was considered to be relatively *unstable cavitary disease*, which included all patients whose roentgenograms had changed within three months of the time of surgery. Twenty per cent had resection for thoracoplasty failure. The operation performed most frequently was lobectomy.

Chemotherapy. It is important to stress the fact that, although only four years have elapsed since the last of these resections were performed, the philosophy of treatment has changed drastically during this time. During the period of this study the chemotherapy consisted for the most part of streptomycin, usually used with para-aminosalicylic acid. The use of chemotherapy was erratic, some patients receiving long, and others short courses. Most patients were given more chemotherapy postoperatively than preoperatively.

Prior Collapse Therapy. A relatively large number of patients had received collapse therapy before resection. Fifty-two patients (65 per cent) had had pneumothorax, pneumoperitoneum or thoracoplasty in various combinations. Eighteen had undergone thoracoplasties, two of which were contralateral. *Postoperative thoracoplasty* was used more often between 1949 and 1952 than is the case today. In this series of 80 operations, 45 were followed by thoracoplasties, 23 of which were done to prevent over-expansion of the remaining lung, and not for specific complications.

Result at Four Years According to Groups. There were 80 patients who had resectional surgery for tuberculosis and have been followed for four years or more. The 12 patients who showed evidence of activity within six months of operation were considered to have persistence of their disease. Activity appearing after six months was considered a relapse (four patients). In most cases the criterion of activity was a positive sputum by smear or culture, but in five patients there was radiological or clinical evidence of activity in the absence of bacteriologic confirmation.

DISCUSSION

At present 85 per cent of the patients are well and have negative sputum. Only 72 per cent of patients obtained a good result without the necessity of further treatment.

The value of long-term follow-up study is apparent when the bacteriologic relapses are analyzed. Fifteen patients had occasionally positive sputum within the first 18 months after surgery, but in none did a clinical relapse occur. In other words, if these patients are followed long enough, many will achieve a good bacteriologic as well as clinical result.

There were several factors that were unfavorable for elective resectional surgery in the group studied.

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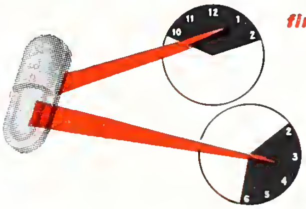

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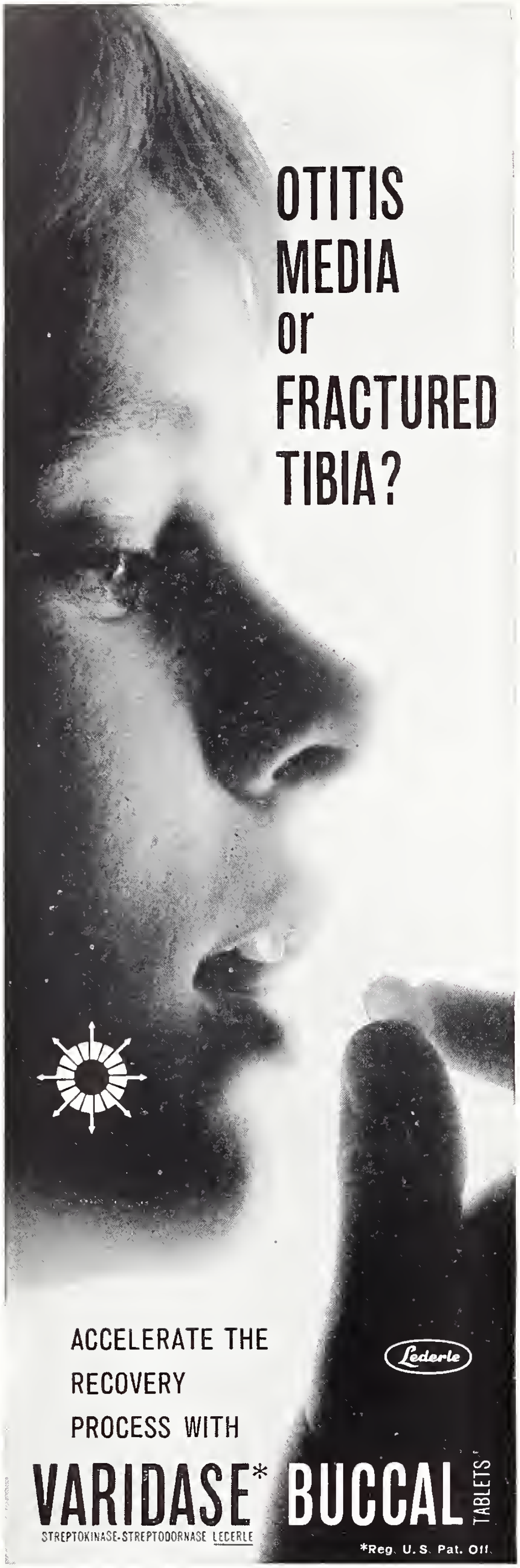

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Nevertheless, 85 per cent of the patients are well, physically active and working or able to work. Even in the presence of a positive sputum satisfactory results were obtained in 69 per cent. The comparative figure for those with a negative sputum is 88 per cent.

The difference in results as related to extent of disease is striking. Ninety-two per cent of the patients with unilateral disease had a satisfactory result, as compared with only 52 per cent of those with bilateral disease.

Resections for unstable cavitary disease yielded fewer satisfactory results than when the resection was performed for a stable residual lesion.

A prompt conversion to negative after surgery as well as a negative sputum preoperatively was associated with a high expectation of a good long-term result.

The fact that chemotherapy at the time of surgery has a striking effect on end results is well known. The patients who received more than 30 days of preoperative chemotherapy and more than 180 days of total chemotherapy had the best results.

SUMMARY AND CONCLUSIONS

A series of 80 resections for pulmonary tuberculosis performed between January 1, 1949 and January 1, 1953, is presented.

Eighty-five per cent of the patients are well and have negative sputum. All survivors have been followed for a minimum of four years.

The majority of poor results were evident within eighteen months of resection.

Seventy-seven per cent of the patients had positive sputum at the time of surgery, and the poor results were concentrated heavily in this group.

All of the tuberculous complications occurred in open-positive cases, and almost a third of such patients had major complications.

A study of the chemotherapeutic regimens further substantiates the importance of adequate preoperative and total drug coverage for resectional surgery.

Postoperative thoracoplasty did not appear to alter results favorably unless done for a specific complication.

The factors that were correlated with a good long-term result were as follows: unilateral disease; a stable residual lesion; negative sputum preoperatively; preoperative chemotherapy for thirty days or more; total chemotherapy for a hundred and eighty days or more; and prompt conversion to negativity postoperatively.

Musings of the Field Secretary

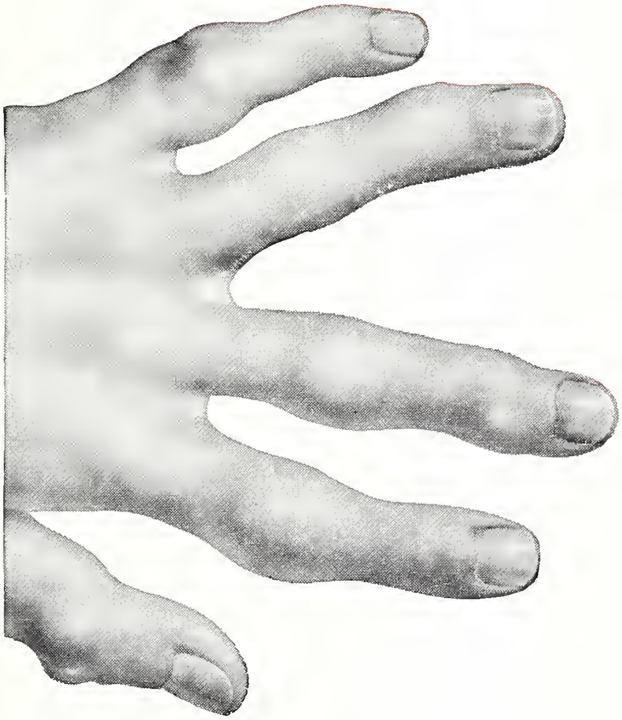
(Continued from page 1110)

2. The new doctor to Williamstown. Here we saw Dr. Jennings depicted as driving into the town in a two-wheeler drawn by a shining white horse.

3. Dr. Jennings comes to Canton. A 1922 vintage automobile came sputtering along to represent his entry into Canton in August, 1922.

It was a great day for Williamstown, Lewis County, on August 17, 1908, and it was a great day in Canton, Lewis County, on August 17, 1958.

ARTHRITIS... OR GOUT?



GOUT—THE DIAGNOSTIC PROBLEM Clinical "curiosity" rather than clinical "instinct" is the key to accurate diagnosis of gout. Visible manifestations may not appear until late in the course of the disease. Moreover, the patient's description of the pain and the site of the pain may not differ markedly from other articular disorders.

THE FOLLOWING FINDINGS ARE HIGHLY INDICATIVE OF GOUT: (1) *Tophaceous deposits* resulting in irregular, asymmetrical deformity of joints; (2) *Elevated serum uric acid levels* (above 6 mg.%); (3) *Pain relief with colchicine.* When findings suggest gout, therapy with 'Benemid' should be started immediately.

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Across Missouri

(Continued from page 1058)

pal elections are held in May and with such a change state and national races could be held together.

Such a change would be a definite help to incumbents in Congress. Now many find it almost impossible to get away for campaigning during those last few important weeks of a session. This frequently gives another candidate seeking the job a head start on handshaking.

The Missouri Mental Health Commission has named a deputy director of the Division of Mental Diseases to assist Dr. Addison M. Duval, director, named earlier this year.

The deputy is Dr. Louis Belinson, 51, superintendent of the Jacksonville, Ill., mental hospital.

Dr. Belinson takes over his post this month. His job pays $18,500 a year and is under the merit system. As the position was set up by the Commission, it required a psychiatrist with extensive experience as an administrator.

Dr. Duval will take over his duties next May. He is finishing a tour as assistant superintendent of St. Elizabeth's Hospital in Washington, D. C. His job here will pay $25,000 a year.

As *The Kansas City Star* puts it, "Missouri is at the threshold of what we hope will be a new age in mental health." The newspaper added the Commission now is in the position to present a coordinated budget to the 1959 Legislature. It has picked its top directors and can start making long-range plans.

The Commission also is waiting for a decision on its report of how the Kansas City Psychiatric Receiving Center should be operated. Its report, now in the hands of Governor Blair, covers every phase of the required transfer of the now city-owned and operated facility to the state. The transfer was authorized in legislation enacted in 1957.

The Kansas City Association for Mental Health also has its problems.

It has been notified by the United Funds board it will not be included in the forthcoming fund campaign.

The break, terminating 17 years of association, stemmed from a special solicitation held by the mental health group last May over the protest of the United Fund board.

Financial disagreements continued in June when the mental health people asked a budget increase from $17,000 to $45,000 from United Funds for the coming year. Along with the budgetary request, the mental health leaders also reserved the right to raise money independently if United Funds did not provide enough.

It was this reservation that led to their expulsion from the United Funds organization.

The branch banking proposal which goes to the voters in next month's general election continues in the news as both sides trot out fresh ammunition.

The latest body blow came from Harry S. Truman who flatly declared he was against it.

One of the six nursing homes in the Greater St. Louis Area recently cited by the state health division has closed its doors. It was the Hanley Nursing Home.

The other five reported to be taking remedial steps to comply with state requirements are: The Green Valley Convalescent Home, Pine Crest Nursing Home No. 1, Pine Crest Nursing Home No. 2, Cedarcroft Home and White Oaks Convalescent Home.

The new state law governing operation and safety of nursing homes was passed by the 1957 Legislature after the disastrous fire in the Katie Jane Memorial Home in Warrenton, February 17, 1957, in which 72 lives were lost.

A study is under way at the University of Missouri to determine whether a strange, cotton-like fungus that developed over severe burns suffered by a Warrenton boy facilitated his amazingly rapid recovery.

In the accident, a year ago, the boy was standing by while his father was cleaning his motor car engine with gasoline. When an explosion enveloped the child with flames, the father rolled him in the dirt to smother the flames. After first aid, he was taken to the University of Missouri Hospital.

There the child was given little chance for recovery. Yet 14 days after he apparently had picked up the fungus from the soil, the crusty fungus and skin debris separated from the underlying tissue without the usual surgery.

Missouri soil and more specifically its underlying minerals also seems to hold great economic promises as the state's ore deposits are being exploited.

James D. Idol, director of the State Division of Resources and Development, said Missouri can move ahead of Michigan in motor car production because of its natural resources and location of St. Louis.

He maintains it is logical to assume that if our

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assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

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References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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SG-J-618

natural resources can produce the raw products the steel mills will follow and around the steel mills will gather the users of the mills' production. Among new developments are:

The sinking of a shaft to 3,000 feet in the magnetite iron ore deposit at Pea Ridge, 70 miles south of St. Louis. This area is expected to produce 2 million tons of ore annually starting in 1962. Reserves have been placed at 50 years. It also is reported this ore can be blended with Southern Missouri's brown ores, giving a St. Louis steel mill a short-haul market for both ores.

Another deposit of the magnetite ore south of the Missouri River has been located. Also the extensive leasing of land in St. Charles and Warren County by another major company gives some evidence that the mineral has been found there, Idol said.

Another recently announced discovery was made by the St. Joseph Lead Company. It is investigating heavily in sinking shafts to reach high-grade lead ore in Viburnum, near Salem in South-central Missouri. The firm expects to have 15 million dollars invested in the project by the time it completes construction of a new town for its workers. The town is to house about 2,000 persons.

NEW "TEEN TALK" RADIO SERIES

A new series of three radio programs featuring interviews with teenagers will soon be available from the AMA's Bureau of Health Education. These 15-minute "Youth Speaks Up" programs offer pertinent comments by youth on boy-girl and parent-child relationships, school activities and world affairs. The youthful participants were chosen to represent leaders in school, athletes, slow learners, fast learners and "problem cases." Local medical societies may secure these platters as supplements to the "Magazine of the Air" monthly series or as separate programs for airing on local radio stations.

Missouri Medical Meetings

Missouri State Medical Association Annual Session, St. Louis, April 13-16, 1958.

Missouri Academy of General Practice, 10th Annual Assembly, Chase Hotel, St. Louis, October 18-19, 1958.

St. Louis Pediatric Society—second Thursday of each month, September through May at Medart's Restaurant, 8:00 p.m.

Component Society Meeting Dates

Audrain County Medical Society—third Monday of each month.

Barton-Dade County Medical Society—third Wednesday of each month.

Benton County Medical Society—meets only on call.

Boone County Medical Society—first Tuesday of each month.

Buchanan County Medical Society—first Wednesday of each month.

Butler-Ripley-Wayne County Medical Society—first Wednesday of each month.

Callaway County Medical Society—third Thursday of each month.

Cape Girardeau County Medical Society—first Monday of each month.

Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month September through May.

Clay County Medical Society—last Tuesday of each month.

Clinton County Medical Society—meets only on call.

Cole County Medical Society—fourth Tuesday of each month.

Cooper County Medical Society—first Monday after the 15th of each month.

Dallas-Hickory-Polk County Medical Society—first Wednesday of each month.

Dunklin County Medical Society—third Tuesday of each month.

Franklin-Gasconade-Warren County Medical Society—last Tuesday of each month at the St. Francis Hospital, Washington, at 12:30 p.m.

Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.

Greene County Medical Society—fourth Friday of each month.

Henry County Medical Society—meets only on call.

Holt County Medical Society—meets only on call.

Howard County Medical Society—meets only on call.

Jackson County Medical Society—March, May, October and December.

Jasper County Medical Society—second Tuesday of each month, September through May.

Jefferson County Medical Society—meets third Friday of each month.

Johnson County Medical Society—meets only on call.

Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 p.m., at the Victory Cafe, Lexington.

Lewis-Clark-Scotland County Medical Society—meets only on call.

Lincoln-St. Charles County Medical Society—third Thursday of each month.

Marion-Ralls-Shelby County Medical Society—fourth Tuesday of each month. 7:30 p.m.

Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.

Miller County Medical Society—meets only on call.

Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.

Moniteau County Medical Society—second Thursday of each month.

Nodaway-Atchison-Gentry-Worth County Medical Society—first Monday in February, April, October and December.

North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.

Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month September through June.

Pemiscot County Medical Society—third Thursday of each month.

Perry County Medical Society—second Thursday of each month.

Pettis County Medical Society—third Monday each month September through May.

Pike County Medical Society—third Tuesday of each month.

Platte County Medical Society—meets only on call.

St. Louis County Medical Society—second and fourth Wednesday of each month.

St. Louis Medical Society—third Tuesday of each month October through May.

Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month September through May.

South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.

Webster County Medical Society—meets only on call.

West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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Washington

(Continued from page 1056)

up of physicians up to 35 and with obligation under the regular draft may be called.

Among other measures expected back next session will be one to provide contributory health insurance for federal workers and dependents. This would apply to about 5 million persons in all.

Other legislators have indicated they will once again seek government subsidies to defray costs of medical education, and higher income tax deductions of medical and hospital expenses.

Still to be decided is a proposed ban on the use of airmail for shipment of packages containing bacteria, toxins and other materials conceivably having a danger factor. The Post Office Department is reported to be considering the regulation change because of an incident about two years ago in which a container of polio virus was broken in transit.

Among the many bills signed into law by President Eisenhower was one boosting the national debt limit to a peacetime peak of 288 billion dollars.

In signing an 887-million-dollar aid-to-education bill, the president said it doesn't do all that needs to be done in a growing scientific world.

The bill provides student loans, fellowships for those who want to be college teachers, grants to the states to help locate and guide able young students, and grants to states for equipment needed for teaching science, mathematics and modern foreign languages.

Plans are underway for a national campaign against a billion-dollar-a-year food fad racket. Joined in the fight are the AMA, the Federal Food and Drug Administration and the National Better Business Bureau.

Chief target of the campaign to be carried to the public through educational programs are itinerant door to door vendors of over-priced food supplements.

President Eisenhower signed a bill creating a new independent federal agency to police the nation's fast-growing airplane traffic. It provides for a powerful administrator who could make and enforce safety rules for commercial, private and military planes.

The Quarterly Legislative Review of the Washington office of the AMA reported the following legislation enacted:

SOCIAL SECURITY AMENDMENTS

As it has done every election year since 1950, Congress again amended the Social Security Act. It increased Old Age, Survivors and Disability Insurance benefits by 7 per cent, in response to demands that benefits keep pace with the cost of living. It provided an additional $197 million for public assistance recipients, and gave states greater flexibility in use of federal funds for financing the medical care of the aged, blind, the disabled and dependent children. To finance the liberalizations, the law increases the taxable base from $4,200 to $4,800 of gross employment earnings and raises the tax in 1959 from 2¼ per cent to 2½ per cent for the employer and employee, and from 3⅜ per cent to 3¾ per cent for the self-employed. Additional increases are scheduled for 1960, 1963, 1966 and 1969. By 1969, the self-employed will be paying 6¾ per cent of earnings.

HEALTH APPROPRIATIONS

In response to appeals from a number of sources, Congress set a new high in money voted for the Department of Health, Education, and Welfare, particularly for the Public Health Service. The latter now is spending at the rate of close to three-quarters of a billion dollars a year.

Last year PHS received from Congress approximately 562 million dollars; this year's total is $745,747,000. Members of Congress find it difficult to vote against more funds for medical research and a myraid of other health programs, once health-oriented House and Senate committees have agreed on certain figures for the ensuing year.

Research money for the seven institutes was increased nearly 40 per cent over last year, while the Hill-Burton hospital construction program received a boost of close to 55 per cent. If one is to judge from a recent study group of HEW, the peak of spending in the health field hasn't yet been reached. Congress also voted nearly $7 million for the long-sought new quarters for the National Library of Medicine.

HILL-BURTON AMENDMENTS

Because a full year's notice is deemed necessary in future planning, Congress voted a 5-year extension of the Hill-Burton hospital construction program. The act otherwise would have expired next June. In a separate action, Congress amended the act to permit for the first time Hill-Burton loans at the same rate of interest the government pays for its own borrowing.

Under the loan act, an applicant would have to comply with all H-B regulations, the same as regular H-B applicants. The extension bill is Pub-

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lex) equivalent to tetracycline hydro-
ide ....250 mg.
nycin (as novobiocin sodium)...125 mg.

nalba KM †† Flavored Granules. When
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teaspoonful (5 cc.) contains:

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ne hydrochloride ....125 mg.
nycin (as novobiocin calcium)..62.5 mg.
sium metaphosphate ....100 mg.

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s. of body weight per day, administered
to 4 equal doses. Severe or prolonged
tions require higher doses. Dosage for
s is 2 to 4 teaspoonfuls 3 or 4 times daily,
nding on the type and severity of the in-
n.

Missouri Medicine in Review

(Continued from page 1076)

tember 7, with Dr. Scott P. Child, Mount Vernon, President, in the chair.

The eleventh annual conference of the Kansas City Southwest Clinical Society convenes Tuesday, October 3, and continues through the following Wednesday and Thursday.

TEN YEARS AGO

J. J. Bredall, M.D., Perryville, has been appointed chairman of the Perry County Cancer Board of Perry County.

Ferdinand C. Helwig, M.D., Kansas City, is in Japan as a member of a five member lecture staff for army medical personnel in Japan and the Pacific area for the U. S. Surgeon General.

Edwin C. White, M.D., Kansas City, was elected president of the Missouri State Board of Medical Examiners at a meeting of the board in Jefferson City on August 15.

The first postgraduate course for general practitioners on "Diseases of the Chest," under the auspices of the American Trudeau Society, will be presented January 17, 18, 19, at St. Louis University School of Medicine, St. Louis.

The Clay County Medical Society, composed of thirty-six members, is sponsoring a Clay County Medical Society Clinical Conference to be held at the Elms Hotel, Excelsior Springs, Thursday, November 4. The program is pointed especially at the general practitioner.

Book Reviews

Medicine in Chicago, 1850-1950, A Chapter in the Social and Scientific Development of a City, by Thomas Neville Bonner. The American History Research Center, Madison, Wisconsin. 1957. Price $5.00.

This book covers a century of medicine in Chicago or a hundred years of progress in socio-econmic problems, and medical and industrial development and advances. The story is a complex undertaking and study of all of these situations, as medicine cannot be isolated from them.

The task was great and progress slow, but the greatest hinderance to progress was the lack of communication. Progress in medical science, therefore, was directly proportioned to progress in communication and travel.

As groups of medical men formed, progress would alter ideas and as a mitotic cell divides, so these groups would part. The basic concept that kept them from complete separation would be the best treatment for the patient. Finally, when all major problems and differences were resolved, these groups united to make Chicago one of the greatest medical centers in the world.

As the medical societies formed and grew, so did metropolitan Chicago. This type of growth and division is as true today as it was then, and will continue ad infinitum.

Along with medical growth, there developed the socio-economic factors as much or more of a problem then as they are today. In this respect, Chicago had probably more than her share since the city developed into an immigration point. With immigration came social, health and economic difficulties. Chicago fought and battled these problems and advanced to become the great city that it is today.

A revolution in medical practice has taken place in Chicago as elsewhere since 1900, and its impact on the health and welfare of Chicago's citizens has been as profound as it has been dramatic.

It is to be hoped that today's followers of Hippocrates will continue to show the same courageous determination that marked the conduct of their forbears. J. G. C.

Principles of Urology. An Introductory Textbook to the Diseases of the Urogenital Tract, by Meredith F. Campbell, M.D., Emeritus Professor of Urology, New York University. Consulting Urologist to Bellevue Hospital, New York; to Variety Childrens Hospital, Miami, and St. Francis Hospital, Miami Beach, Florida; Lecturer in Urology, University of Miami School of Medicine. W. B. Saunders Company, Philadelphia. 1957. Price $9.50.

Dr. Campbell has written a comprehensive three volume "Urology" and a "Clinical Pediatric Urology," both designed primarily for the urologist and as reference texts.

This book is precisely what the title indicates, a presentation of urologic principles without elaboration on rare or unusual conditions. It is an ideal text for medical students, and it is difficult to conceive of a situation arising that is not, at least, mentioned.

The thirty page index is comprehensive; the bibliography adequate for further study of any subject not elaborately presented, and there is a chapter of questions included with page references for the answers. A. D. M.

Essays in Metabolism: The John Punnett Peters Number of the Yale Journal of Biology and Medicine, edited by Louis G. Welt, M.D., Professor of Medicine, University of North Carolina School of Medicine, Chapel Hill. Little, Brown and Company, Boston. 1957. Price $6.50.

The book "Essays in Metabolism" by Louis G. Welt is a compendium of papers in honor of the late J. P. Peters of the Yale Medical School. Jack Peters is too well known to need further introduction.

In these days of discussion of the Russian motives, Dr. Peters is perhaps a forgotten but still controversial figure. He championed many unpopular causes, and his loyalty investigation is a matter of record and embarrassment to those who knew him.

The first remarkable observation about this book of essays is that of Dr. Peters has a bibliography of 229 papers. In fact, this is the only remarkable thing about the book. Any one who has struggled to write a medical paper cannot be but overwhelmed with the fact that one man can write or have a part in over 200 such publications.

This book is not one which is of general interest. It consists of a series of papers on electrolyte and

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lipid metabolism, which embodies a professional investigator's language, and which are of little help in the practical management and treatment of the patient with fluid balance problems.

Lou Welt, the editor of this volume, is an ex-student of Jack Peters. Lou has forsaken the practice of medicine for the theory and research aspects of the profession, and this brief volume contains graphs and formulas which mean little to those who are interested in the practical aspects of the field of metabolism.

It seems to me that the various authors of these articles could profit by a study of semantics, as well as a study of electrolyte metabolism. M. D.

SYMPOSIUM ON DISEASES AND SURGERY OF THE LENS. Editor, George M. Haik, M.D., Professor of Ophthalmology and Head of the Department, Louisiana State University School of Medicine; Ophthalmic Surgeon, American College of Surgeons; Associate Editor, Elizabeth M. McFetridge, M.A.; and Art Editor, Don Alvarado, Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. The C. V. Mosby Company, St. Louis. 1957. Price $10.50.

There is held annually in New Orleans a symposium on some particular ophthalmologic problem. The presentations and discussions are recorded and published for those unable to attend. The 1956 symposium on diseases of the lens was outstanding, having as discussants Chandler, Cordes, Dunnington, Irvine, Kinsey, Thorpe and Vail, each one an emminent authority.

The combination of didactic lectures and the informal discussions which follow makes for pleasant and worthwhile reading. The subjects of cataracts, congenital, complicated and senile, is completely covered and is exceedingly well done. The book is filled with ophthalmologic pearls and should be a must for everyone doing eye surgery. D. B.

THE FIGHT FOR FLUORIDATION, by Donald R. McNeil. Oxford University Press, New York. 1957. Price $5.00.

This is rather a complete history of fluoridation and its effects, both as a health issue and as a political issue. Its effect on tooth structure was first noticed in 1902 by Frederick S. McKay, D.D.S., in the form of mottled or stained enamel. It was not until many years later that it was realized that fluoridized water reduced dental caries.

Wisconsin was the first state to introduce fluorine into its water supplies and as it did the issue came into national prominence. It was not long in becoming a "political football," which was the reason for its delayed acceptance by the people of the United States.

Progress was slow until 1950 when the United States Public Health Service and the American Dental Association approved the program. As of November 1, 1956, fluoridation was serving 30,490,000 persons in 1,432 communities. Certainly not a victory but a step foward in one of our most perplexing problems—dental caries. R. W. E.

SYNOPSIS OF OBSTETRICS, by Jennings C. Litzenberg, M.D., Late Professor Emeritus of Obstetrics and Gynecology, University of Minnesota Medical School, Minneapolis. Revised by Charles E. McLennan, M.D., Professor of Obstetrics and Gynecology, Stanford University School of Medicine, San Francisco. With 163 Illustrations including 4 in Color. Fifth Edition. The C. V. Mosby Company, St. Louis. 1957. Price $6.00.

This book covers pregnancy and its complications in brief but adequate form. It is well documented with illustrations and diagrams throughout the subject matter. Normal pregnancy and labor are covered first, and this is followed by pathology and complications of pregnancy, labor and puerperium. Several of the final chapters are related to obstetric surgery.

In summary, this is an adequate and well presented synopsis of obstetrics and gynecology. H. B. L.

THE SPECIALTIES IN GENERAL PRACTICE, edited by Russell L. Cecil, M.D., Professor of Clinical Medicine, Emeritus, Cornell University Medical College, New York City; and Howard F. Conn, M.D., Fellow, Department of Physiology, Baylor University College of Medicine and the Blue Bird Clinic, Methodist Hospital, Houston, Texas. Second Edition. W. B. Saunders Company, Philadelphia. 1957. Price $16.00.

This fine book made its initial appearance in 1951 and Dr. Conn has been added to the editorial staff since then, otherwise the contributors are the same.

As would be expected the major fields are covered, with the notable absence of medicine except for pediatrics, and in pediatrics there is no mention of the fact that "pediatric fractures" are different from adults. Otherwise, I feel that fractures are adequately covered for this type of book.

The section on gynecology falls short in the treatment of information to the practitioner, as compared to the sections covering the other fields. However, it should be mentioned that the many authors, while doing a fine job of presenting their various problems, fall short in many respects. The title indicates that the book is beamed toward the family doctor. Much of the book is presented in a condescending manner, which is a typical fault. Secondly, many conditions are mentioned with the note to "send it to a qualified man." I'm sure the authors have been too confined in their Ivory Towers, as too many men often are. But by and large, this book is an excellent reference, for both the young and the old practitioner, and also for the specialist who "spills over" into other fields. L. C. W.

SURGERY: PRINCIPLES AND PRACTICE, edited by J. Garrott Allen, M.D., Professor of Surgery, University of Chicago; Henry N. Harkins, M.D., Professor of Surgery, University of Washington School of Medicine; Carl A. Moyer, M.D., Bixby Professor of Surgery, Washington University School of Medicine, St. Louis; and Jonathan E. Rhoads, M.D., Professor of Surgery, University of Pennsylvania School of Medicine and and Graduate School of Medicine, Philadelphia. J. B. Lippincott Company, Philadelphia. 1957. Price $16.00.

In this new textbook of surgery 32 prominent surgeons, as well as the authors, contributed to its contents. In addition to general surgery, this text also includes an introduction to gynecology, neurosurgery, orthopedics, pediatric surgery, thoracic surgery and urology. There are illustrations in black and white and extensive bibliographies at the end of each chapter. Those chapters dealing with the surgical subspe-

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under 6 months	0.5 cc.	← 2 or 3 times daily, on the tongue, in fruit juice or water
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2 to 6 years	3 cc.	
adults and children over 6 years	1 teaspoon (5 cc.)	

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References: 1. Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347. 2. Goldsmith, J. W.: Minnesota Med. *40*:99 (Feb.) 1957.

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cialties are as complete as one would desire in a textbook of general surgery.

This book was well planned. It is easy to read and discusses the diagnosis and treatment of a wide variety of general surgical conditions. It also presents the fundamental sciences that are important to each disease described. Little space is devoted to surgical technic, but brief mention is made of the proper operation for the condition discussed.

I feel that this is a valuable textbook in general surgery. It is a reliable guide for medical students and interns. It is an excellent source of valuable information for general surgeons. J. A. F

ORTHOPEDICS FOR THE GENERAL PRACTITIONER, by William E. Kenney, M.D., Orthopedic Surgeon, Truesdale Hospital; Medical Director, Cerebral Palsy Training Center, Fall River, Mass.; and Carroll B. Larson, M.D., Professor of Orthopedic Surgery and Chairman of Department of Orthopedic Surgery, State University of Iowa, Iowa City, Iowa. With 180 Illustrations. St. Louis, The C. V. Mosby Company, 1957. Price $11.50.

This book is published by the C. V. Mosby Company of St. Louis. It has a good index. The book is dedicated to the general practitioner. It is well bound, well written, with artistic illustrations which are simple, well done and plainly demonstrate the pathology. The notations of the time casts or other supports should be worn and the period of time following injuries before they are able to return to work are noteworthy.

To me it seems one of the most complete books I have seen on the subject in one of this size.

It should prove helpful to the general practitioner in aiding him to make a diagnosis, what to do and how to do it and to know when to ask for help.

Also, having taught medical students orthopedic surgery for over 35 years, I believe it should be more useful to them as a textbook than some larger, detailed volumes.

It has been a delight to review this book and I, myself, have learned by the review. C. A. S.

TEXTBOOK OF PATHOLOGY WITH CLINICAL APPLICATIONS, by Stanley L. Robbins, M.D., Associate Professor of Pathology, Boston University School of Medicine; Associate Director of the Mallory Institute of Pathology, Boston, Massachusetts; Lecturer, Harvard Medical School and Tufts University School of Medicine. Illustrated. W. B. Saunders Company, Philadelphia. 1957. Price $18.00.

Any book, provided one reads it, will be beneficial to the reader. This is especially true in the field of medicine. Needless to say, the reader will benefit more if the book is well written.

Since many good books are in circulation at this time, it is, to be sure, a difficult task to write a textbook. However, Dr. Robbins has overcome this difficulty by introducing into his "Textbook of Pathology" his own experiences which stimulate both interest and thought process of the reader.

Of special interest are the chapters on collagen

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diseases and diseases of infancy and childhood. The clinico-pathologic correlation, when present, is concise and to the point. Some of the headings are refreshing and the macro and microphotographic reproductions are excellent.

This book is valuable in this age of wonder drugs and ultra laboratory tests when often the basic pathology is neglected or even forgotten. L. Y.

PRACTICAL GYNECOLOGY, by Walter J. Reich, M.D., Attending Gynecologist and Section Chief, Fantus Clinics of the Cook County Hospital; Attending Gynecologist, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine; Assistant Professor of Obstetrics and Gynecology, Chicago Medical School; and Mitchell J. Nechtow, M.D., Associate Attending Gynecologist, Cook County Hospital and Fantus Gynecologic Clinic; Associate Professor of Gynecology and Obstetrics, Chicago Medical School; Associate Professor of Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist, Northwest Hospital; Chief of Gynecology and Obstetrics, Norwegian-American Hospital. With 284 Illustrations, including 68 Subjects in Color. Second Edition. J. B. Lippincott Company, Philadelphia. 1957. Price $12.50.

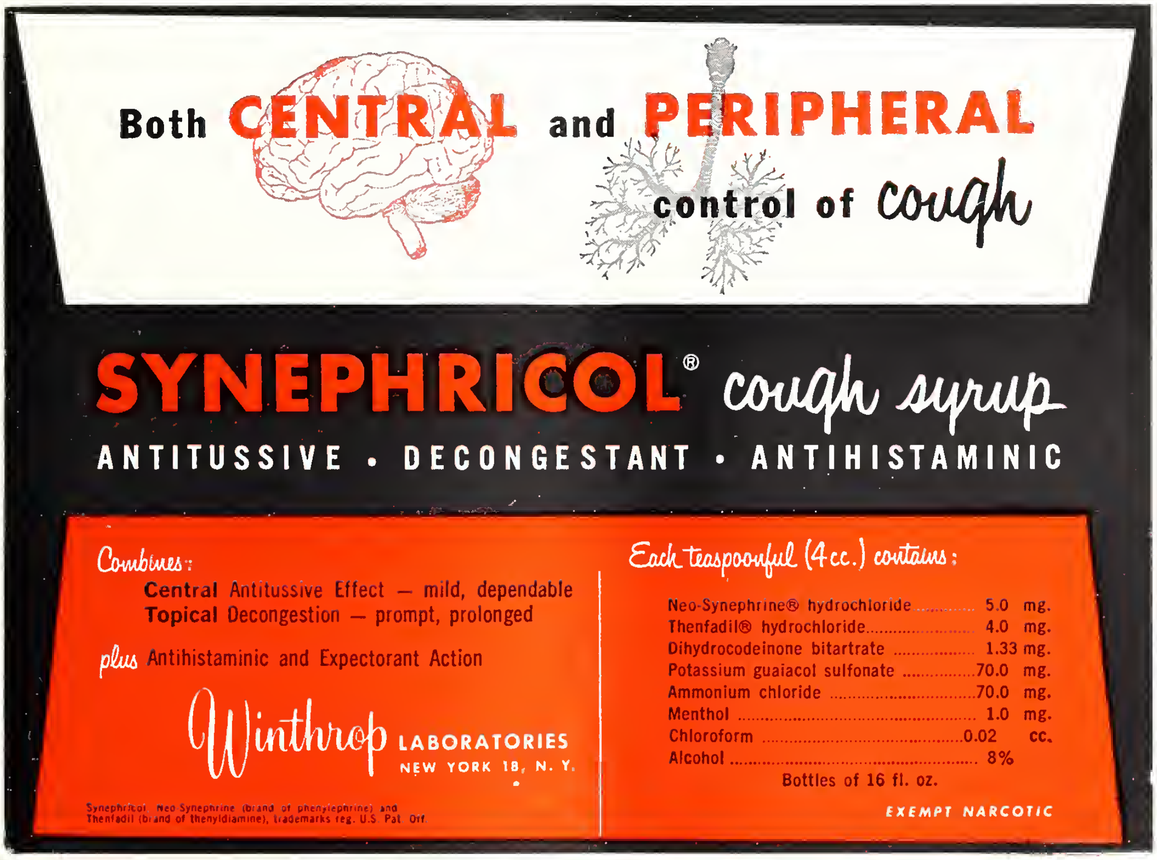
The second edition of "Practical Gynecology" is an excellent textbook for the general practitioner and for physicians in other specialties who handle female patients. It is written primarily for these groups and adequately accomplishes its mission.

The authors make use of their vast personal experiences, and especially those of the Cook County Hospital, to point out most of the problems that might commonly be expected in gynecologic patients, with emphasis on simplifying diagnosis and treatment. The discussion is nearly always from the practical standpoint with an acceptable management given, usually that used by the authors.

The text contains 625 pages divided into 26 chapters, and nine of these are new including an excellent one on pediatric gynecology. It is easy to read with short concise sentences and paragraphs, while the typography is large and the headings adequate and easy to follow. There are numerous excellent photographs and colored illustrations, many of which demonstrate special technics and office procedures with sufficient clearness to be of great help. There is also an index which appears complete and well organized.

Probably because of the author's desire for the practical approach and especially for the general physician, there are certain shortcomings which will perhaps limit the value of the book for the gynecologist. Minimal attention has been devoted to etiology, historical importance, microscopic pathology, relative incidence and bibliography. There are a few typographical and spelling errors such as the term "fibromyoms" instead of "fibromyomas" on page 403, and "stimulate" instead of "simulate" on page 409, and even of context, such as the Schmitz Classification on page 395. These are infrequent, however, and detract little from the overall value of this work.

It remains a book for the general physician and should be valuable to him. R. O. K.



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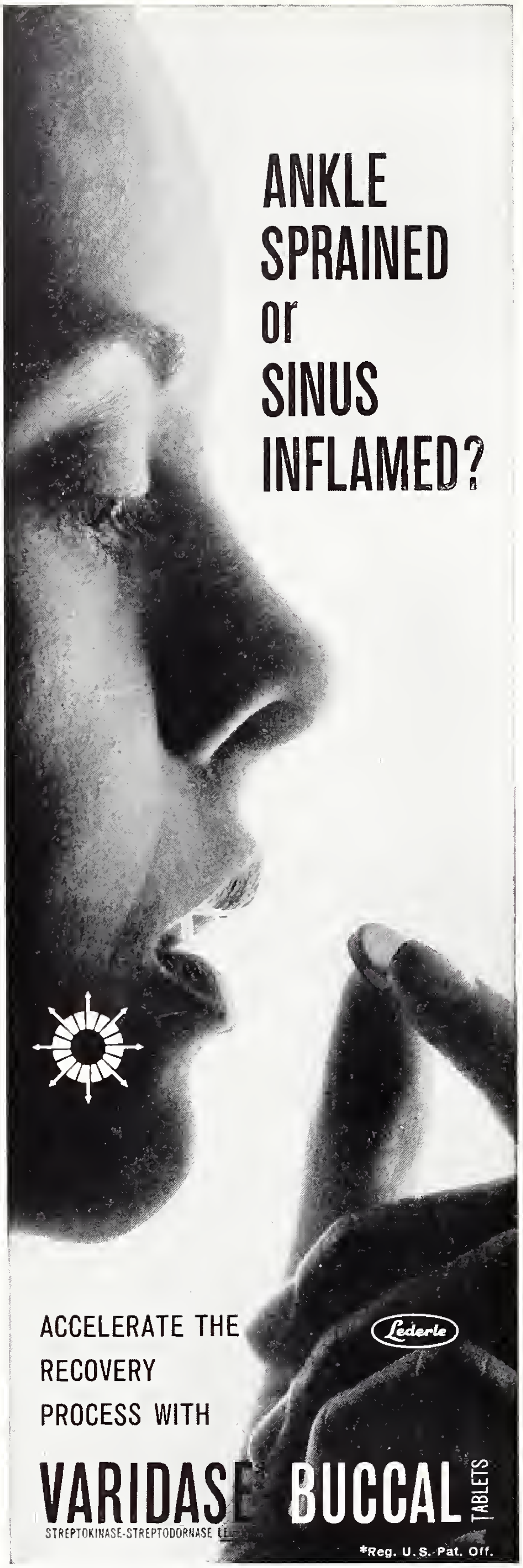
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AUXILIARY CONFERENCE TO BE HELD IN OCTOBER

The Woman's Auxiliary to the American Medical Association will hold its annual conference for state presidents, presidents-elect and national officers October 6-8 at the Drake Hotel, Chicago. The meeting will feature discussions of a number of Auxiliary projects, including *Today's Health*, paramedical recruitment, AMEF, community service, safety, bulletins, finances, civil defense, mental health and legislation.

MENORAH MEDICAL CENTER TO PRESENT PROGRAM

The Department of Medicine, Menorah Medical Center, Kansas City, announces the 1958 A. Morris Ginsberg Memorial Seminar. Dr. Sol Sherry, Professor of Medicine, Washington University School of Medicine, St. Louis, Missouri, shall be the visiting lecturer. The program follows:

Wednesday, November 19, 1958:

9:00-10:00 a.m.—Lecture: Fibrinolysis—Fact and Fancy, Dr. Sol Sherry.
10:30-11:30 a.m.—Panel Discussion: Diabetes Mellitus. Moderator, Dr. Harry Statland; Panel Members, Dr. Sol Sherry, Dr. Robert Bolinger, Dr. Santiago Grisolia.
2:00 p.m.—Grand Rounds: Dr. Sol Sherry and house staff.
8:00 p.m.—Lecture: Therapeutic Enzymology With a Look to the Future, Dr. Sol Sherry.

Thursday, November 20, 1958:

9:00-10:00 a.m.—Lecture: The Biochemical Lesion, Dr. Sol Sherry.
10:30-11:30 a.m.—Panel Discussion: Disorders Involving the Connective Tissue and Joints. Moderator, Dr. Morton Creditor; Panel Members, Dr. Sol Sherry, Dr. Mahlon Delp and Dr. Sloane Wilson.
2:00 p.m.—Grand Rounds: Dr. Sol Sherry and house staff.

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Curiosa et Trivia

The Abbot of Brunn, Gregor Mendel, published his findings on heredity in 1865. Unnoticed and bitter, he died a few years later. Thirty-five years after his death, three botanists “discovered” the principle and were acclaimed by the scientific world.

Persons over 60 need about twice as much light for a given task as those between 17 and 20.

Mount Zion Hospital in San Francisco has found a happy solution to the short-term hospitalization problem. Patients admitted Friday evening may have needed x-ray and laboratory work, even minor surgery, and are dismissed Sunday morning. Hospital personnel are thus used more efficiently, overall hospitalization costs are cut down, and the patient loses no time from work.

And with pedigrees! The Jackson Memorial Laboratory in Bar Harbor, Maine, last year shipped almost a half million specially-bred mice to labs throughout the world. About three-fourth million stayed in Maine for research. But demand still exceeds the supply; and plans call for about two million “blooded” animals next year.

Capsule Clinics

- It has long been known that chronic stomach ulcers are situated commonly at the lesser curvature but there has been no agreement as to the cause of this localization. A study of 127 stomach specimens showed that the area proximal to the incisure angularis and that near the pyloris are most likely to be involved. Acute ulcers in either of these areas are subjected to repeated mechanical injury by waves of gastric contents striking this portion of the stomach wall rhythmically against the rigid vertebral column. Hellwig, C. A., et al., Arch. Surg. **76**:331, 1958.

- It has been estimated that 25,000,000 persons in the United States harbor T. spiralis, a shocking situation which should arouse a tumultous demand for correction. The authors relate their experience with corticotropin in treatment of three youngsters suffering from trichinosis. Results were excellent. It is suggested that recurrences are less likely when steroid therapy is employed intensively over a short period of time. Greenstein, N. M. and Steinberg, D., J. Dis Child. **95**:261, 1958.

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WASHINGTON

In its final roundup on medical legislation for the 85th Congress, the Washington office of the AMA reports that it kept close watch over 704 medical bills and resolutions of the 20,604 total legislative proposals introduced during the 2-year period.

The AMA had a good batting average, too!

Not a single major bill opposed by the Association became law, and it supported most of the 19 major medical bills that were passed. (A detailed breakdown of most of these was carried in this column last month.)

The AMA, as well as doctors across the nation, spent more time and effort on defeating the Forand bill to provide free hospital and surgical care to social security recipients than any other. This measure will be back next session for sure.

The last Congress was concerned about health matters, especially research. It appropriated $294,383,000 for medical research during the current fiscal year, and another $43,300,000 was voted for additional research buildings for the National Institutes of Health.

While these sums are overshadowed by defense appropriations, it is the biggest sum ever devoted to health.

In 1940, for example, Congress voted only 4 million dollars, and in 1950 only 70 million dollars. This year's appropriations were 83 million dollars higher than President Eisenhower recommended.

Talk of a doctor draft next year if the number of volunteers doesn't increase, already has reared its ugly head in Washington.

Lewis B. Hershey, selective service director, has sent notices to local draft boards asking physicians now classified 1-A to undergo physical examinations. The Doctor Draft law was extended until July 1, 1959, by the 1957 Congress. Supposedly, physicians over 35 are not to be called, according to policies announced when it was extended.

Dr. Frank Berry, assistant Secretary of Defense for health and medical affairs, said the armed services need about 2,700 new doctors each year. A few weeks ago the number of volunteers appeared to be "between 700 and 1,000" shy of the goal. He added that no doctors had been drafted in the last two years.

The Post Office Department has dropped its plan to ban airmail shipment of etiologic disease agents in the face of protests. They came from medical societies, the Public Health Service, the pharmaceutical industry and many other groups.

The airlines had asked the ban on the basis the presence of the etiologic agents constituted a danger to plane passengers and crews.

Reportedly the postal officials shifted their positions because the PHS is drafting new packaging requirements.

The Office of Civil and Defense Mobilization has started the distribution of 40 million copies of a handbook for civil defense emergencies.

The free booklet gives easy-to-follow instructions on what to do in a wide variety of emergencies, from floods and tornadoes to nuclear attacks.

Also in the nuclear vein, milk from the St. Louis milk shed was reported to have the highest "yearly average" strontium-90 level of five American cities surveyed by the PHS. The other cities covered in the federal radioactivity study were New York, Cincinnati, Sacramento, Calif., and Salt Lake City.

However, the St. Louis level was well within the permissible strontium-90 level set by the National Committee on Radiation Protection and Measurement. That level is 80 micromicrocuries.

The St. Louis figure for the year ended in July was 10.2 micromicrocuries in a liter of milk. The others were Cincinnati at 6.8; New York, 5.9; Sacramento, 4.9, and Salt Lake City, 4.2.

The Food and Drug Administration also is doing extensive work in the radiologic health field. Food samples packed back to 1945, the first nuclear test year, are being collected in order to gather data on changes in radioactivity in foods.

The PHS also reported it was working with the National Committee on Radiation Protection and Measurement concerning the use of x-rays in physicians' offices. The question of possible registration of such equipment evidently has been posed to the PHS.

Many of these programs undoubtedly will be discussed at the 9th annual conference of County Medical Societies Civil Defense Organization in Chicago, November 8. The AMA's Council on National Defense is in charge of the 2-day meeting that starts the 8th.

Missouri's allotment from Washington under a 40-million-dollar appropriation for national defense education during the current fiscal year was $835,089. Kansas received $468,286. Interest in the program was spurred by the first Sputnik.

The Missouri allotment includes $372,191 for acquisition of equipment and minor remodeling; $31,021 for administration, and $60,021 in loans to non-profit private schools. These programs are to finance a program of strengthening instruction in

(Continued on page 1194)

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Across Missouri

Platform-wise Missouri voters have little to choose between the Democrats and Republicans when they go to the polls Tuesday the 4th. Both platforms call for bigger welfare payments, but lower taxes.

At their recent state committee meetings in Jefferson City, both party leaders also ducked taking any stand on the branch banking proposition that will be presented to the voters.

The Democrats did go on record for public school desegregation. Their strong plank on this read:

"Racial segregation imposed by laws or any other means is contrary to the principles on which democratic government is based. We therefore hail the decisions of the Supreme Court outlawing state-imposed segregation."

Both parties also went on record favoring proper financial support for state mental hospitals and health programs.

Under new federal legislation, persons on some of the state's welfare programs were expected to get a little boost in their monthly check without waiting for the General Assembly.

Checks for old-age assistance and aid to the permanently and totally disabled were anticipated to be about $2 a month higher, putting the maximum at about $62. This was a result of the liberalizations in the federal social security act enacted by the last Congress. The overall ceiling on which the government will provide matching funds was raised from $60 a month a recipient to $65.

Missouri's welfare programs now cost about 137½ million dollars a year, including 50 million dollars of state funds and the rest in federal grants. The new federal legislation is expected to add about 2½ million dollars, most of it going to the old folks and the disabled. To take full advantage of the changes also ultimately will require more state funds.

Gov. James T. Blair has said that he wants to determine just how much state money must be appropriated to gain the maximum benefits.

"I hope we will be able to increase welfare benefits, but at the same time I want the welfare dollars spent in a manner that will be as sparing as possible to Missouri taxpayers," the governor declared. "We want to do everything we possibly can for our needy citizens, but we can't break the state."

He added that he hopes Missouri will be able to develop a medical care program for those on old-age assistance and the disabled rolls at the 1959 legislative session that starts in January.

Finding additional money for welfare programs will be just one of the money problems facing the governor and the legislators next January.

Governor Blair has predicted that the biennial budget appropriations for 1959-61 would increase to 1.2 billion dollars. This would be 171 million dollars more than the current biennium that ends next June 30.

In commenting on the expected increase, he said that he knew both parties had proposed platforms with additional expenditures and reduction in taxes.

"That's nice if you can get it to work," he quipped. "However, no money can be found for the support of the government except from taxes."

He attributed the need for more money to the rise in school population, the rise in penal inmates and the rise in the population in mental institutions. He added that every mental institution in the state had a long waiting list.

To help provide some of the needed money, the governor has proposed that Missouri increase its taxes on cigarettes, beer and liquor.

He also suggested an adjustment in Missouri's low franchise tax, further revisions in income tax collections methods or an increase in sales tax as possible courses.

One group seeking more aid from the state is the blind. A $15 monthly increase in their present $60 a month pension will be sought, according to the Missouri Federation of the Blind.

The new social security legislation enacted by Congress and a surplus in the state's blind pension fund should make the increase possible, the federation president said. The group also will seek to increase the income limit for pensioned blind persons from $2,100 to $2,400 a year. Those making more than $2,100 now get no pension.

Just who is going to run the Kansas City Psychiatric Receiving Center continues a moot question. The contract between Kansas City and the Kansas City Mental Health Foundation runs out the first of this month.

It has been suggested by the *Kansas City Star* that the state might continue the arrangements with the Foundation when, and if, it takes over the keys to the Center.

Under legislation enacted in 1957 the state is supposed to take over the Center, but now the matter appears to be bogged down over whether the city can deliver a proper title for the institution.

The city maintains it can deliver a fee simple

(Continued on page 1246)

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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

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Missouri Division of Health

H. M. Hardwicke, M.D., *Acting Director*

HOSPITAL RECORDS AND REPORTS

The Missouri Legislature in 1953 passed the "Hospital Licensing Law," thereby charging the Missouri Division of Health with the responsibility of "adopting, amending, promulgating and enforcing such rules, regulations and standards with respect to all hospitals . . . to be licensed . . . and to further the accomplishment of the purpose of this law in promoting safe and adequate treatment of individuals in the interest of public health, safety and welfare."

In order to discharge its obligation under this directive, the Missouri Division of Health upon the advice of the Hospital Advisory Council, called upon recognized experts in the field of hospital administration, construction and design and upon physicians, nurses and technologists and their professional organizations to assist in the creation of a manual of rules and regulations for the licensing of hospitals.

Personnel of the Missouri Division of Health, the Hospital Advisory Council and of those committees and organizations which so generously assisted in the creation of this manual faced the problems with the full realization of the great responsibility placed upon them. The manual of rules and regulations has gone through several revisions, the last being in 1956. At all times the personnel working on these rules and regulations were aware that their only objective was to help promote the safe and adequate treatment of individuals admitted to hospitals within the State of Missouri.

It is impossible to promote the safety of hospitalized patients without conforming to the minimal requirements of construction, maintenance and operation of hospitals which will reduce fire and other hazards. It is equally impossible to promote adequate treatment without requiring conformity to accepted principles of therapy, of ethics and of education on the part of physicians and nurses practicing in licensed hospitals. The rendering of good medical care is equally dependent upon efficient management and organization of the hospital concerned.

The Division of Health is aware that those who have voluntarily accepted the discipline attendant upon being a physician, nurse, technologist or a hospital administrator are desirous of rendering the best medical care possible. It is for this reason that the basic responsibility for a constantly improving quality of hospital care rests primarily with the professional personnel involved. Legally established codes or standards can serve merely as minimal criteria against which the profession may measure its own progress and the quality of its own services.

Ranking high in importance in the administration of the hospital are the medical records and reports. Medical records serve as a basis for planning patient care, they provide a means of communication between the physician and other professional groups contributing to the patient's care, they furnish documentary evidence of the course of the patient's illness and treatment, and they serve as a basis for review, study and evaluation of medical care rendered to the patient. For these reasons, the Joint Commission on Accreditation of Hospitals considers the quality of medical records an important indication of the quality of patient care given in a hospital.

The Division of Health is not interested or concerned with the methods of treatment, medication and therapy, as indicated in the reports, only in the quality and quantity of the hospital medical report.

Administrators of hospitals are charged with the responsibility of appointing or employing an individual who shall have the responsibility for the supervision, filing and indexing of all medical records of the hospital.

Patient's records should be complete and contain sufficient information from admission to discharge to justify the diagnosis and warrant the treatment and end results.

Medical records shall be kept for all patients admitted to the hospital including identification data, present illness, past history, family history, history of present complaint, physical examination, special reports (such as clinical laboratory, x-ray, consultations and others), provisional diagnosis, physician's or dentist's orders, nurses' notes, pathologic findings, progress notes, final diagnosis, condition on discharge, necropsy and tissue reports when available, and certification as to accuracy and completeness by the attending physician or dentist.

The Division of Health strongly emphasizes the importance of the medical record as a testimonial to the quality of care and treatment rendered to patients in hospitals. It is constantly brought to the attention of hospitals as a result of the splendid work being done by the Joint Commission on Accreditation of Hospitals. Many a lawsuit involving hospitals, employees and physicians has been

(Continued on page 1194)

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Missouri Medicine in Review

Leo H. Pollock, M.D.

FORTY YEARS AGO

The president of the Association, Dr. M. P. Overholser of Harrisonville, has been quite ill with a carbuncle followed by septicemia which compelled him to spend several weeks in a hospital in Kansas City. He is now at home and convalescing satisfactorily.

Dr. Rolla H. Henry, chief physician at the St. Louis City Dispensary, has been appointed superintendent of the St. Louis City Hospital to fill the vacancy caused by the resignation of Dr. J. A. Pringle, who has accepted a commission in the Medical Corps of the Army. Dr. Walter Rohlfing succeeds Dr. Henry as chief of the staff at the City Dispensary.

Dr. George W. Carpenter of Utica, president of the Livingston County Medical Society, was the guest of honor at a meeting of the members of the county medical society recently when a farewell party was tendered him. He is a lieutenant in the Medical Corps of the Army and stationed at Fort Riley. In his absence Dr. A. Collier of Avalon will act as president.

Dr. O. H. Campbell, a member of the St. Louis Medical Society, now in the Medical Corps of the Army, has been promoted from major to lieutenant-colonel. Colenel Campbell has recently arrived in France and is attached to Base Hospital 87. Others who have been advanced to the rank of lieutenant-colonel are: Drs. Fred T. Murphy, V. P. Blair, M. C. Seelig, all of St. Louis.

Colonel Edward L. Munson, for twenty-five years an officer of the Medical Corps, U.S.A., has been promoted to the rank of brigadier-general, and with the promotion selected for duty on the general staff. The new commission is in the line of the army. General Munson is the third medical officer of the army to be given general officer's rank for duty outside the Medical Department of the Army, the previous appointees being Generals Ainsworth and Leonard Wood.

At the annual meeting of the State Board of Health, January 16, Dr. W. A. Clark, Jefferson City, was elected president; Dr. A. W. McAlester, Columbia, vice-president, and Dr. George H. Jones re-elected secretary. The board reviewed the conditions throughout the state caused by the epidemic of influenza and decided that the precautionary measures that had been instituted should be continued for an indefinite period. The board has withdrawn its recognition of the St. Louis College of Physicians and Surgeons.

Major-General Gorgas, Surgeon-General of the Army, was retired when he reached the age limit in October last, but was immediately recalled to active duty with the same rank. He will complete the inspection of medical conditions in France and England, on which work he was engaged when he reached the retiring age, and will then return to the United States. It is announced that his next assignment may take him to Italy. Major-General M. W. Ireland has been nominated for the position of Surgeon-General of the Army and has returned to the United States to assume the duties of that office.

TWENTY-FIVE YEARS AGO

Dr. P. H. Swahlen, St. Louis, was elected chairman of the executive staff of St. Ann's Hospital, St. Louis, at a staff meeting, October 2. Dr. E. J. O'Malley, St. Louis, was chosen secretary.

Surgeon L. L. Williams, Jr., Medical Officer in charge of malaria investigations of the United States Public Health Service, discussed the "Possible Relation of Insects to Encephalitis" at a meeting of the Academy of Science of St. Louis, October 11.

Dr. Arthur E. Strauss, St. Louis, was elected president of the St. Louis Trudeau Club at the October 5 meeting. Dr. Bryan J. McGinnis, St. Louis, was elected vice-president; Dr. George S. Wilson, St. Louis, was elected secretary-treasurer, and Dr. H. I. Spector, St. Louis, Chairman of the program committee.

Dr. Malvern B. Clopton, St. Louis, was elected chief of staff of St. Luke's Hospital, St. Louis, by the Board of Directors of the hospital, October 18. Dr. Clopton succeeds the late Dr. Harvey G. Mudd who was chief of staff of St. Luke's Hospital for thirty-three years. Dr. Omar Seven, St. Louis, was reelected assistant chief of staff and Dr. Walter Fischel, St. Louis, was reelected secretary.

Dr. Caleb A. Ritter, Kansas City, was honored by the alumni of the University Medical College of Kansas City at a dinner, October 5. Dr. Ritter is 81 years old and has practiced in Kansas City for forty-nine years. He was an instructor at the University Medical College of Kansas City, was one of the first physicians in service at the General Hospital, and one of the organizers of the maternity department at the hospital.

On October 20, Lincoln County Medical Society

(Continued on page 1248)

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Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

Concerning the State Board Meeting

"The secret of friendship is just the secret of all spiritual blessing. The way to get is to give." Friends met together in St. Joseph where the Buchanan County Medical Auxiliary was hostess to the Fall Board Meeting. As 82 women registered we were given a name tag printed on a little colored school bell. After our general assembly we were assigned groups according to the color bell we wore. This was done promiscuously because it acted merely as a breakdown in number. Each group discussed the same questions, which were compiled from complaints and questions written by the members; each group had the same resource people visiting them. Each group had a leader and recorder. The leader led off by using the sheet of suggested questions and when the resource people entered her group she led the group into the field in which that person was an "expert." To carry out the "Back to School" theme our meeting was called to order by using an old school bell instead of a gavel and each half hour the bell was rung to denote that the resource people were to go to another group. Mr. MacIntyre, who served as Liaison person between the Auxiliary and Society and in organization, and Mr. Logan who served as resource person in Legislation came from the association office in St. Louis. Mrs. Flynn served as Resource person in Program and Mrs. Rauschenback in Community Service (Public Relations). These ladies are both officers in the National Auxiliary. Mrs. Fred Wade of Jackson County and Mrs. Charles T. Shepherd of St. Louis County Auxiliary served as "experts" in the field of A.M.E.F. and Safety. All of these people proved themselves worthy of the title "expert" and the success of this meeting can be greatly credited to them.

The actual discussion of this period will be published in our *Quarterly Bulletin*. There were many "highlights" which I would like to report. During the session on the second day we previewed the film "Helping Hands for Julie." This is one of the latest films and can be used with pride in your local communities in the interest of careers and recruitment. When Mrs. Redmond reported on Safety she placed in our hands the Flip chart "A Car of His Own" which can be obtained through her to use in groups up to 75. She demonstrated the suggested way to use the flip chart which is sometimes more easily used than a film. Each chairman there gave his report and many passed their letters of direction to the county groups at that time. These letters carry any suggestions from the state chairman and the things that National has sent to her to be relayed on. If you have not received your letter please check with your president or write the state chairman whose name and address is in the hands of your county president. In line with the plans and thinking of Mrs. Benson, our State Mental Health Chairman, we visited the Myrtle E. Miller School of Special Education on Wednesday afternoon. Mrs. Benson feels that in each small community there are children who need special help and because of their mental limitations are lost in regular grade work. Miss Miller, who has done spectacular work in this field, talked to us of state rules and regulations concerning setting up some special learning situation for these children. The school and talk were both challenging. About 30 of us took this fine tour.

Another extra was the display brought by Mrs. Stewart, Health Careers Co-chairman. These adorable 18 inch dolls in the costumes of Medical Careers were some she had used in the booth at the State Fair.

It would be an error indeed to leave out the fun we shared. The Buchanan County Auxiliary had us as their guests for lunch on Tuesday. There was an ulterior motive to this. We wanted the ladies to stay close by and not disperse before our call to order but the "sneaky" method used did not take away from the loveliness of the luncheon and the fun we had visiting. These girls from St. Joe also provided us with a coffee break in the afternoon. Then in the evening the County Medical Society were hosts at a Social Hour preceding a fine dinner. After dinner we were royally entertained by members from five of our auxiliaries. We need never search for professional entertainment; among our members we have a wealth of talent. Mrs. Jordon Kelling of Waverly accompanied herself in a tribute to Doctors which she had written for her own group some time ago. Then she gave a little skit in dialogue and became a Negro mammy before our eyes even to blacking her face. She was wonderful. Mrs. Shepherd of St. Louis County, assisted by three girls from her district gave an original skit on Safety. Sue narrated while Geraldine Walton, dressed as an old woman took from a box all the dangerous objects commonly found around the house which are harmful to old people. Then Ruth Fries dressed as a baby,

(Continued on page 1194)

hank you, doctor"

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*Trademark

Washington

(Continued from page 1174)

science, mathematics and modern foreign languages.

In addition, $142,068 was allotted for loans to students in institutions of higher education; $124,-085 for guidance and encouragement of able students, and $105,703 for an area vocational education program.

The United States is seriously threatened by yellow fever, Dr. John D. Porterfield, U. S. deputy surgeon general, reports.

"It has moved out of the South American jungles, has reached the tropics of Central America and is slowly working its way toward the U. S. border," Dr. Porterfield said.

Medical teams of the PHS are in Central America trying to block the northward march of the disease, he said. The yellow fever-infected mosquito has reached areas within 400 miles of the U. S. border and the disease is moving northward at a rate of 20 to 40 miles a year.

Division of Health

(Continued from page 1180)

won or lost on the strength or weakness of the medical record.

The quality of the medical record as a criterion of the care and administration in a particular hospital is a matter of grave concern to those who have the responsibility of representing the interest of hospitals in lawsuits. In the defense of a hospital corporation in a liability case the medical record is generally the base around which the legal defense is built. It is extremely difficult to build such a defense around a poorly prepared record. Obviously, the defense will only be as good as the medical record.

The value of physician's orders, progress notes and consultation records cannot be underestimated. The prognosis and discharge summary, which is an integral part of every medical record, is either the source of great satisfaction or considerable concern to hospital attorneys. Lawyers look upon the prognosis as a forthright statement, in the opinion of the attending physician, regarding the patient's condition at discharge and the likelihood of complete or partial recovery. The discharge summary is highly regarded in legal evidence. It should not be a perfunctory résumé but, a carefully prepared summary of the care and treatment rendered.

The following, taken from a recent issue of "Hospital Progress" is excellent advice: . . . "render the best possible hospital service to patients using your facilities. Document the nature of care and treatment in a medical record that will be a credit to the hospital corporation and to the physicians and nurses who have collaborated in rendering good patient care."

Woman's Auxiliary

(Continued from page 1188)

licking a huge sucker, did the same showing all the poisons and hazards which are so often fatal to little folks. Cam Mayor dressed as a devil represented the hazard of fire. Sue had a clever dialogue describing the things represented. One line which the audience will never forget was "Don't smoke in bed. The ashes on the floor may be your own." She will send you a copy of this if you wish. Mrs. Bohnsack of Brookfield and six girls gave some musical numbers which they had written for Doctor's Day last year. I ended up being in the chorus line with these girls so I hope I won't sound immodest if I say—it was a chorus line to end all chorus lines. We had head-bands—garters with flowers and kicked with the experience of having played the "Roxy" in days gone by. Mrs. Stanley Peterson portrayed the lady we all know so well in ourselves who never has just the right clothes on. Marjorie won our hearts all over again and made us realize how lucky we are to have this charming girl as president-elect. Mrs. John McDaniel of St. Joe had a wonderful skit mimicking what might happen at any ladies meeting. We were convulsed at this and hated to admit that some of these things have happened in the Auxiliary. For those who don't know, though I'm sure you suspicioned, Mrs. McDaniel has done much acting and showed how outstanding is her talent. All her girls gave the most convincing portrayals of a wonderfully funny situation.

The evaluation sheets said such things as "We learned a great deal"; "I am taking home much valuable and helpful information"; "We have heard a wonderful interchange of ideas"; "The resource people were most helpful"; "I talked when before I was afraid to express myself." "Everyone in our group talked." The adverse criticisms were complimentary also. Most of them ran "We didn't have time enough to finish questioning some of the resource people." It was a really good meeting.

Lots of fun—lots of friendliness and the best in newspaper coverage—a triumph in public relations. Even the hotel manager wrote saying how much he appreciated the fact that the ladies told him what a nice time they had had at the Robideaux.

Remembering that "Work won't kill you but your attitude toward work will" let's get busy and do lots of work this year.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 November, 1958 Number 11

Median Nerve Compression at the Wrist

(Carpal Tunnel Syndrome)

ARTHUR H. STEIN, JR., M.D., *St. Louis*

The physician is frequently called upon to see a patient whose major complaint is numbness, tingling or burning pain in the hand. One of the common causes of such symptomatology is compression of the median nerve at the level of the wrist where it passes through the volar carpal tunnel. In 1947, Brain, Wright and Wilkinson[1] presented six cases of this condition, in whom the symptoms had been relieved by means of section of the transverse carpal ligament. In 1946, Cannon and Love[2] presented a series of similar cases from the Mayo Clinic, and reported relief of symptoms from decompression in nine cases. Even though the clinical condition is known, it would appear that recognition of median nerve compression is often missed. Phalan[6] in 1957 published an excellent review of this condition in the American Academy of Orthopaedic Surgeons Instructional Course Lectures.

The etiology of the condition in many reported cases has remained rather obscure. The cause of the disability has often been attributed to ischemia of the median nerve in the volar carpal tunnel, or abnormalities in the anatomy of the volar carpal tunnel. In many instances a definite etiologic factor can be identified as producing the median nerve compression within the tunnel.

The volar carpal tunnel is an anatomic structure which is essentially a closed space. It is bounded on the dorsal surface by the volar carpal ligaments of the wrist. The radial boundary is the radial carpal eminence and is produced by the prominence of the carpal navicular and greater multangular. The ulnar boundary is the ulnar carpal eminence and is produced by the hook of the hamate and the pisiform. The grove thus formed is converted into the carpal canal or tunnel by the transverse carpal ligament which extends between the radial and ulnar carpal eminences. This ligament is thick, unyielding and, in part, serves as an origin for some of the thenar and hypothenar muscles.

Through the carpal tunnel ten separate structures pass to the palm of the hand. The four sublimus tendons, the four profundus tendons, the long flexor tendon to the thumb, and the median nerve pass through the carpal tunnel. The median nerve is the most superficial of these ten structures. The fact that the median nerve passes through this closed space makes it susceptible to compression from any pathologic process which tends to produce proliferation of synovial tissue in the tunnel, or an increase in the amount of fluid within the volar carpal tunnel.

One of the more common causes of alteration of the anatomy of the volar carpal tunnel is fracture of the distal end of the radius. When residual dorsal angulation of the distal fragment remains, the floor of the tunnel is altered and thereby the proximal portion of this closed space may be encroached upon and produce compression of the median nerve (case 3). Rheumatoid arthritis, which is associated with proliferative changes of the synovial lining of the tunnel, may also produce compression of the median nerve. Excessive use of the wrist, resulting in a mild sterile type of tenosynovitis, can also account for compression of the median nerve (case 2). Any type of infection (a granulomatous process, such as tuberculosis or Sporotrichosis, or even a pyogenic process) within the tunnel can produce compression of the median nerve. The granulomatous infections are particularly prone to produce this set of symptoms. Calcific tendinitis also can produce an acute sterile

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From the Department of Orthopedic Surgery, Washington University School of Medicine, St. Louis.

inflammatory process within the volar carpal tunnel, thereby causing median nerve compression (case 4). Recently three patients with Sudeck's atrophy have been seen with sensory loss corresponding to the median distribution in the palm of the hand. The Sudeck's atrophy followed fractures of the distal inch of the radius and suggested the possibility of median nerve compression as a factor in setting off the chain of events which has gone under the name of Sudeck's atrophy. Acromegaly has been reported as a causative factor in producing median nerve compression.[1]

The patient with compression of the median nerve in the carpal tunnel may have had symptoms for many years providing the etiologic process is not an acute one. The common complaint is numbness of the thumb, index, long, and a portion of the ring finger. The symptoms are frequently much worse at night and keep the patient from sleeping. Often the individual is awakened by numbness and tingling of the hand, which after manipulation and moving the wrist subsides to some extent. When the process has been going on for a long period of time, complete numbness of the portion of the hand supplied by the median nerve may be present. In occasional cases the sensory loss may be severe enough that the patient inadvertently burns either the thumb, index or long finger of the involved hand. When the symptoms have been prolonged, the patient may also notice considerable weakness of the hand.

Examination of the hand frequently reveals no significant abnormality to inspection. If the condition has been present for a long time there may be evidence of atrophy of the thenar muscle group. Frequently the patient has a full range of motion of the fingers and the thumb. Sensory examination will almost always reveal hypesthesia over the median distribution of sensation in the hand. Distribution of median nerve sensation to the hand usually includes the thumb, index, long, and the radial half of the ring finger. However, in some individuals, the distribution of the median nerve may involve only the thumb, index and the radial half of the long finger. Sensory examination of the hand should include light touch, pin prick and sensation to heat.

One of the most valuable signs is a positive Tinnel's sign over the volar carpal tunnel. This is produced by tapping over the median nerve and, if positive, the patient will have radiating pain over the area of median distribution in the hand. Flexion of the wrist, which is maintained for 30 seconds, will often produce an increased numbness and tingling of the involved fingers. This has been attributed to an increase in pressure in the proximal portion of the canal upon flexion of the wrist. If the wrist is extended, the pressure is increased in the distal portion of the canal. Gilliatt and Wilson[7] have described the tourniquet test, which may be helpful in some cases. This test is accomplished by applying a blood pressure cuff about the arm and inflating the pressure to a level above the systolic pressure. In the damaged or compressed nerve the signs of numbness and tingling are produced more rapidly than they are on the uninvolved side.

Recently Eaton and Lambert[3] in their paper on "Electromyography and Electric Stimulation of Motor Nerves" have pointed out that in some cases of median nerve paralysis at the carpal tunnel level, one may demonstrate a conduction deficit on the involved side. This examination is performed by stimulating the median nerve at the level of the wrist and recording the action potential of the thenar group of muscles. The time of conduction is measured; the distance is known and therefore the conduction rate of the median nerve at this particular level can be estimated and compared with the uninvolved side. We have recently employed this test in all the patients who have been suspected of having a median nerve compression at the wrist. Some cases have shown a definite conduction deficit in comparing the involved and uninvolved side, which we felt helped confirm the clinical evidence of median nerve compression (cases 2 and 4). However, about an equal number of patients who have had definite median nerve compression which was relieved by decompression of the nerve have failed to show any significant conduction deficit between the involved and the uninvolved side. One recent case showed a complete absence of conduction on the involved side prior to operation, and then, 2½ months later when tested, showed evidence of returning motor function. At the present time, it is our feeling that this test may give valuable information, but the absence of a slowed conduction does not mean that the patient does not have compression of the median nerve within the carpal tunnel.

In considering a diagnosis of median nerve compression in the carpal tunnel, it is important to exclude other sites of compression of the nerve structures that supply sensation to the hand. Examination of the cervical spine including x-rays, if indicated, is important to rule out an intervertebral disk lesion that might also be producing symptoms of numbness in the hand. A cervical disk lesion should not produce confusion because there should be tenderness and limitation of motion of the cervical spine. In a cervical disk lesion, the neurologic changes correspond to a root lesion with changes in the biceps or triceps reflexes and sensory changes extending above the wrist. In the carpal tunnel syndrome the findings should be localized to the level of the wrist or distally. A cervical rib producing nerve compression should be considered in the differential diagnosis.

A search should always be made for the presence of a supracondyloid process of the humerus (case 5). If this process is present there is almost always a fibrous band extending from the supracondyloid process to the medial epicondyle of the humerus. This fibrous band therefore produces a foramen through which the median nerve passes. It may therefore be a possible site of compression of the median nerve.

Recently Goldner[4] has also pointed out that the median nerve can be compressed at the level where it passes between the two heads of the pronator teres muscle.

When a definite diagnosis of median nerve compression within the carpal tunnel is made, the symptoms can, in the majority of instances, be promptly relieved by decompression of the median nerve. The operative procedure is probably best performed under general anesthesia, with control of bleeding by means of a pneumatic tourniquet about the brachium. Several surgical approaches have been postulated, however, adequate decompression of volar carpal tunnel is best performed by a longitudinal incision across the wrist, with a short transverse element in the incision as it crosses the flexion creases of the wrist. A complete decompression of the volar carpal tunnel is difficult to carry out through a short transverse incision since it is important to adequately visualize the nerve so that the motor branch to the thenar muscles is not inadvertently sectioned.

In carrying out the operative procedure, the entire volar carpal ligament is sectioned. The ligament is not closed, and it is also thought to be important not to bury any unnecessary suture material in the wound. Hemostasis is adequately attained by use of electro-coagulation. In closing the wound only the skin is closed, and this is usually done with No. 34 stainless steel wire. Early motion of the wrist and fingers is important in the postoperative period.

The only conservative measures that I have so far found to be effective is injection of hydrocortisone into the volar carpal tunnel. So far this has been an effective method of management in a single patient who had signs and symptoms of bilateral median nerve compression with an associated diagnosis of rheumatoid arthritis. In this particular case there was palpable thickening over the volar aspect of the wrist with severe disability from numbness and tingling in the hand. Both hands were relieved by injection of 1 cc. of hydrocortisone diluted with 2 cc. of novocain. When injecting the volar carpal tunnel, it is extremely important that the injection is not made into the median nerve itself.

The following group of cases is presented in some detail to exemplify principally the variety of etiologic factors which may produce compression of the median nerve in the volar carpal tunnel.

CASE REPORTS

Case 1. E. G., a 75 year old white female, had had rheumatoid arthritis for many years. Six months prior to admission to the hospital, the patient developed increasing pain in the right hand. Over the six months period, the patient noted progressive numbness and tingling of the hand which were particularly pronounced at night. She stated that she had broken many dishes in her home because of inability to perceive adequately what she was holding in her right hand.

Examination revealed thickening and tenderness over the volar carpal tunnel. Sensory examination of the hand revealed a typical median sensory loss, with definite atrophy of the thenar muscles. Tapping over the median nerve produced definite radiation of pain into the fingers supplied by the median nerve. Nerve conduction studies did not reveal a significant degree of conduction slowing in the right hand.

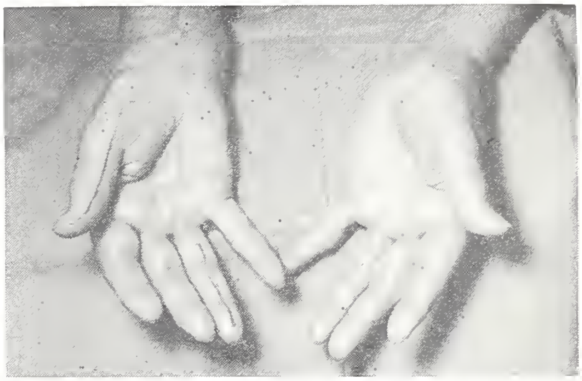

Fig. 1A. Sensory loss over thumb, index, long and the radial side of the ring fingers. Definite swelling was palpable over the volvar aspect of the wrist.

Because of the persistence of symptoms, operative decompression of the volar carpal tunnel was carried out. At the time of operation, extensive proliferation of the synovial lining of the carpal tunnel was encountered. In addition to decompression of the median nerve, the hypertrophic synovium was removed. The skin was closed with a running suture of No. 34 stainless steel wire (fig. 1).

The postoperative response of the patient was satisfactory. Three months following operative decompression of the volar carpal tunnel the patient stated that she had slight tenderness over the operative site. The patient volunteered, and sensory examination confirmed, that she had almost normal sensation of the involved hand. Following operation, the finger and hand function improved considerably.

Case 2. N. D., a 22 year old white female, reported that six weeks prior to being seen she had done some heavy lifting while changing her residence. A few days after helping lift heavy objects, which included a trunk, the patient noted a gradual onset of tingling of the thumb, index and long finger of the right hand. For a period of two weeks the tingling and numbness continued to get progressively worse. Examination revealed that there was slight fullness over the volar aspect of the wrist, and an area of localized tenderness at the proximal portion of the

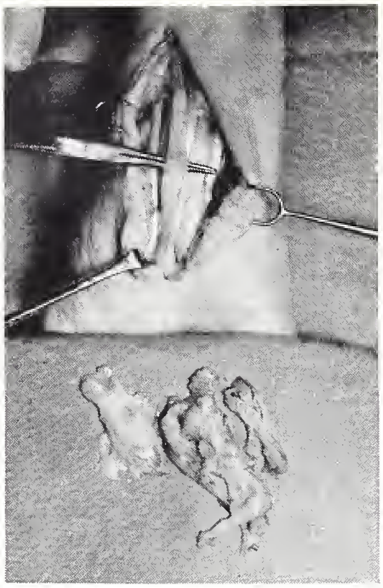

Fig. 1B. Definite constriction of the median nerve is seen in the distal portion of the wound. The specimen below is the hypertrophic synovial lining of the carpal tunnel, and was resected in order to afford better decompression of the carpal canal.

volar carpal tunnel. Examination with pin and light touch and heat revealed a definite median nerve hypesthesia which was localized to the thumb and index finger. The radial half of the long finger also showed a sensory change. There was no evidence of atrophy of the thenar muscle group.

The patient was followed for a period of two weeks, during which time she stated that the numbness in the hand became progressively worse. As a secretary she noted increasing difficulty in her typing because she could not tell where the thumb and index finger of the right hand were in space. Two days prior to admission to the hospital, the patient noted in lighting her cigarette that she had a marked loss of sensation to heat in the thumb and index finger. Median nerve conduction studies were carried out. A definite slowing of median nerve conduction was present in comparing the involved with the uninvolved side (fig. 2).

Approximately six weeks after the onset of symptoms, which had become progressively more severe, decompression of the median nerve in the volar carpal tunnel was carried out. Exploration of the tendons was not indicated, and the wound was closed with No. 34 stainless steel wire to the skin. Postoperatively the patient had a satisfactory course. Two months after the operation, the patient stated she had normal sensation to the hand. She is now back doing secretarial work and has no difficulty typing.

Case 3. I. V., a 64 year old white female was involved in an automobile accident in October 1956, at which time she suffered a fracture of the left wrist. The patient stated that following reduction of the fracture she developed severe pain in her hand and wrist, and the cast had to be removed. At the end of about two weeks, the swelling had subsided somewhat, and the cast was re-applied. However, since the time of the injury the patient had severe burning pain, swelling and stiffness of the hand.

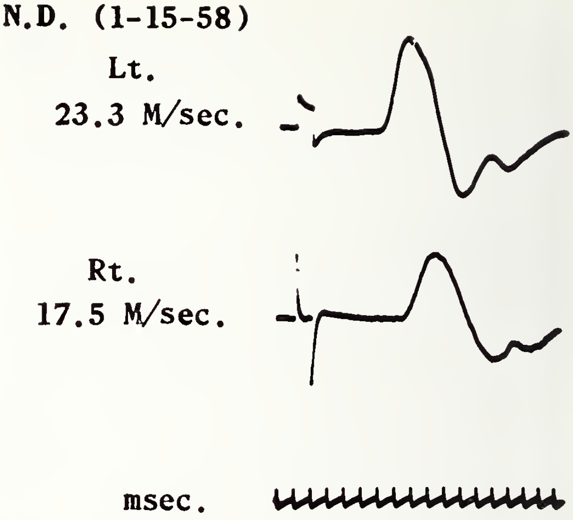

Fig. 2. (Case 2.) Conduction in the left median nerve from the wrist to the thenar muscles revealed a response latency of 5.3 msec. or a conduction rate of 23.3 meter per sec. On the right side the latency of response was 6.7 msec. or a conduction rate of 17.5 meter per sec. The first upward deflection represents the stimulus to the nerve. The second and large upward deflection is the start of the action potential of the thenar muscle group.

Examination at the time of admission to the hospital revealed stiffness and pain in the left shoulder of a mild degree. Examination of the wrist revealed extension of the wrist of approximately 35 degrees with flexion of the wrist of approximately 15 degrees. The general appearance of the hand revealed that the skin was shiny and atrophic over the dorsum. There was definite thenar atrophy of the left hand. Sensory examination of the hand revealed definite numbness over the volar aspect of the thumb, index and the long finger. There was a definite flexion contracture at the metacarpal phalangeal joint of approximately 45 degrees in all the fingers. The flexion of the middle and distal finger joints was severely limited in all fingers. There was localized tenderness over the volar carpal tunnel which produced some radiation of pain into the fingers supplied by the median nerve (figs. 3 and 4).

Nerve conduction studies were carried out on the patient but did not reveal any significant slowing of conduction in the left hand. It was felt that this patient had a clinical picture of an old Sudeck's atrophy associated with definite median nerve compression of the volar carpal tunnel. Under general anesthesia, decompression of the median nerve in the volar carpal tunnel was carried out in the usual fashion. There was mild but definite constriction of the median nerve in the proximal portion of the volar carpal tunnel. The wound was closed with No. 34 stainless steel wire. Within 24 hours after the operation, the patient stated that there was definite improvement in sensation in the hand, and much of the burning pain had subsided. In the postoperative period, the patient was treated with early active motion to the hand. Some three months after the operation, the patient stated that sensation in the hand was essentially normal as compared to the uninvolved side. There was still some residual stiffness of the inter phalangeal joint, but the patient had made a remarkable improvement and

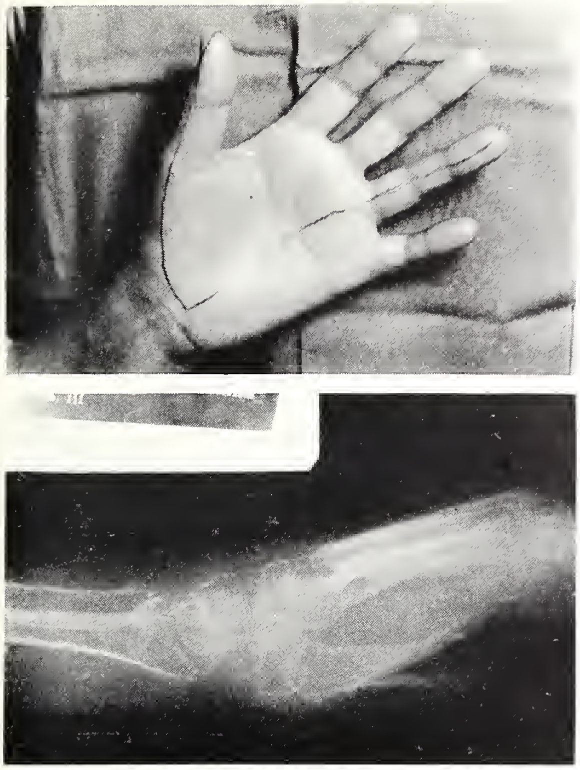

Fig. 3. (Case 3.) A. Sensory loss on the palmar surface showed typical median distribution. This hand showed marked trophic changes, stiffness of fingers and thenar muscle atrophy. B. Fracture of distal radius has healed with residual dorsal angulation.

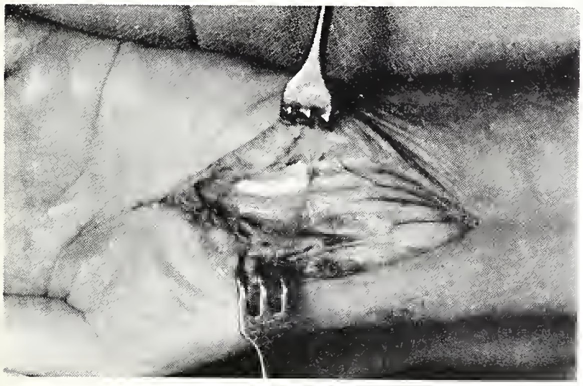

Fig. 4. (Case 3.) Definite narrowing of the median nerve was noted in the midportion of the carpal canal. The nerve was also partially adherent to the deep surface of the transverse carpal ligament.

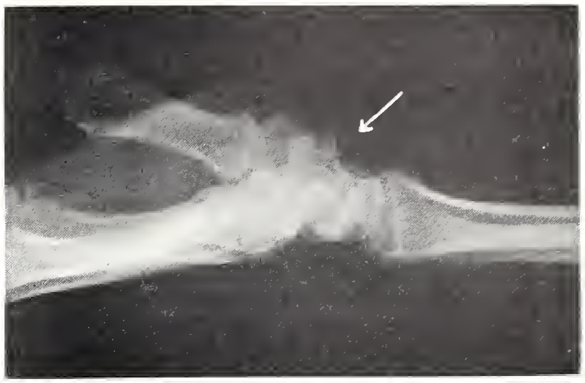

Fig. 5. (Case 4.) Lateral x-ray of right wrist shows large soft tissue calcification in the volar carpal tunnel at tip of arrow.

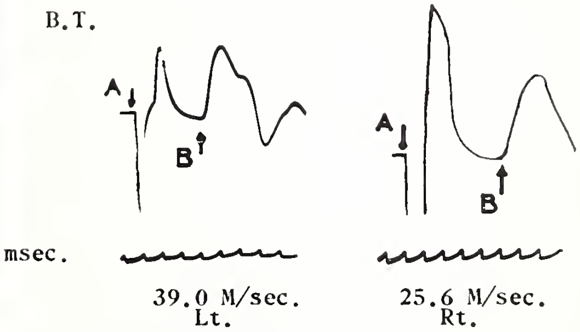

Fig. 6. (Case 4.) Nerve conduction record on the same patient showed decreased conduction rate on the right as compared to the left. Arrows A indicate stimulus to the nerve. Arrows B indicate start of action potential of thenar muscle group.

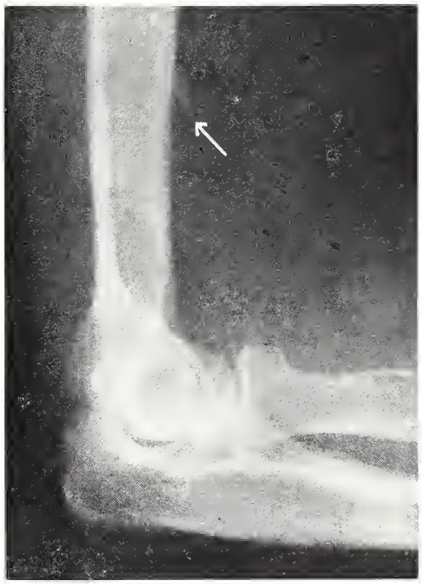

Fig. 7. (Case 5.) The arrow indicates the supracondyloid process of the humerus which was shown best in the lateral x-ray.

was continuing to improve on vigorous active exercise to the hand.

Case 4 D. T., a 36 year old Negro female, two weeks prior to admission to the hospital, developed severe pain in the right wrist. The onset was sudden and the pain mounted steadily in the subsequent few hours. The only history suggestive of injury was that the patient had done some washing and had wrung the clothes rather vigorously a few hours prior to the onset of pain. Examination revealed a slight increase in heat, fullness and induration with well localized tenderness over the volar carpal tunnel of the right wrist. There was a marked hypesthesia to pin prick and light touch over the radial side of the ring finger, the entire long finger, the index finger and the thumb. All fingers were held in slight flexion and any attempt at extending the fingers produced severe pain in the wrist. Routine blood counts were not abnormal at the time of admission. The sedimentation rate was 30, the patient was not febrile. Median nerve conduction studies were carried out on the patient and revealed a marked slowing of conduction on the right side at the level of the wrist. X-ray examination of the wrist revealed some stringy radiopaque material in the region of the volar carpal tunnel with one well outlined radiopaque density lying within the volar carpal tunnel. It was felt that this patient had a median nerve compression related to acute calcific tendinitis in the volar carpal tunnel (figs. 5 and 6).

Hydrocortisone injection into the volar carpal tunnel did not produce any relief of symptoms. Four days after admission to the hospital, decompression of the volar carpal tunnel was carried out in the usual fashion. Extreme hyperemia of the synovial lining of the tunnel was encountered. After the nerve was decompressed throughout the entire length of the tunnel, exploration, deep to the tendons, revealed a 1 cm. calcific mass lying in the volar carpal ligaments. This calcific deposit was excised. The wound was closed with No. 34 stainless steel wire and the patient had an uneventful postoperative course. The patient was seen last six months following her operation, at which time she stated all sensation to the hand had returned. She had excellent motion of the wrist with only slight tenderness over the operative site. Six months after operation, nerve conduction studies were again carried out. Results of these studies revealed that the slowed conduction time was still persistent on the involved side. At the six month interval, the conduction time in the two hands was almost exactly as it had been on the initial examination. It is planned that this patient have a repeat nerve conduction study in another six months to see whether or not there is a return of the normal conduction rate.

Case 5. R. L., a 47 year old white housewife gave a history of pain in the region of the right elbow for approximately ten months' duration. The patient noted radiation of pain down the volar aspect of the forearm and into the radial aspect of the hand which suggested median nerve radiation of pain. The pain in the forearm and hand was aggravated by flexion against resistance as well as supination of the forearm against resistance.

Examination revealed a bony hard prominence one and one half inches above the medial epicondyle of the right humerus. Pressure over this bony hard nodule reproduced the radiating pain down the right forearm as well as obliteration of the radial pulse. There was no definite sensory loss to pin prick over the right hand. X-ray examination revealed a typical supracondyloid process of the right humerus (fig. 7).

In May 1955, operative removal of the supracondyloid process and its associated fibrous band was carried out. At the time of surgical exploration the following relationships were found: The bony process extended out in a hook-like fashion approximately one and one half inches above the medial epicondyle. From the tip of the process a tough fibrous band extended to the medial epicondyle of the humerus. There was thus formed a foramen bounded by the fibrous band, the supracondyloid process and the shaft of the humerus. Through this foramen-like canal ran the median nerve, the brachial artery and the brachial vein. The median nerve and vessels were against the base of the bony prominence as they curved to pass through the foramen. From external pressure they could be easily compressed against the supracondyloid process. The entire postoperative course of the patient was quite satisfactory and she was discharged from the hospital on May 13, 1955. The pain the patient had been experiencing was completely relieved.

Case 6. M. C., a 56 year old white female was admitted to the hospital because of migratory polyarthritis. The patient was apparently in good health until six months prior to admission. At that time she began to have painful feet, and the diagnosis of interdigital neuroma was made and the interdigital nerve to one foot was removed. Following the operation, the patient returned home, but then began to have bouts of numbness, stiffness and pain in both hands. The pain was bilateral with radiation into the median nerve distribution of the hand. At the same time, the patient developed aching in both shoulders and knees. During the course of this process the patient also developed swelling of the ankles with localized heat.

Examination revealed that the patient had a reasonably good range of motion without severe pain in the shoulders. There was some soreness in both elbows with some slight thickening in the periarticular tissue.

Examination of the hands revealed thickening bilaterally over the volar aspect of the wrist, particularily on the right side. Tenderness was localized over the median nerve, particularly on the right side. The patient had marked limitation of motion in both wrists. There was definite tenderness and some thickening about the interphalangeal joints of all the fingers. During the hospital course, the sedimentation rate was elevated. It was felt that this patient had rheumatoid arthritis. Because of the severe symptoms in the hand, the right volar carpal tunnel was injected with 1 cc. of hydrocortisone. The hydrocortisone was diluted with 2 cc. of 1 per cent procaine. The entire mixture was injected into the volar carpal tunnel area, care being taken not to inject directly into the median nerve. Within two days after the injection, the patient noted marked relief of pain in the hand. The range of wrist motion and finger motion improved remarkably. Since at the time of admission the left hand was not bothering her too much, no treatment was instituted on the left side. However, three months after discharge from the hospital, the patient returned requesting that a similar injection be carried out on the left hand because she was having more pain and more stiffness in the hand. Again ½ cc. of hydrocortisone diluted with novocain was injected into the volar carpal tunnel on the left side. The patient later reported that marked relief of symptoms had taken place following the injection.

SUMMARY

Compression of the median nerve in the volar carpal tunnel is often the cause of numbness,

Rheumatoid Diseases

Antimalarials (Chloroquine and Hydroxychloroquine) as Therapeutic Aids

QUENTIN CRAMER, M.D., *Kansas City*

ANTIMALARIAL agents, although not an entirely new concept in the treatment of the related rheumatic disorders, are showing great promise in preliminary observations as being safe, economical and efficient in controlling these otherwise recalcitrant diseases. Quinine was first used in lupus erythematosus as early as 1894 but reports on antimalarial therapy did not appear in the English literature until 1951. Freedman[10] reported optimistically on the newer antimalarials in a controlled series in 1956, and Bagnall[1, 2] presented an eight month to four year follow-up in 125 cases receiving chloroquine (Aralen*). Bagnall[1, 2] and his associates reported a 71 per cent improvement (e.g., Grade I, II, responses) in their series.

Calkin and Cohen[3] demonstrated significant responses in the group taking Aralen over those in which placebos were administered. Earlier studies, in which quinacrine[4] (Atabrine®) had been used, in lupus erythematosus and rheumatoid arthritis showed that toxicity in man was a limiting factor, although reasonably safe in animals. In 1934, Chloroquine (resochin) was successfully synthesized by German investigators[11] and was found to have a much greater margin of safety in man, yet in animals was still quite toxic.

Haydu,[13] in 1949, described the use of chloroquine diphosphate in rheumatoid arthritis and postulated that this compound reduced the high effort level of tissues in rheumatoid arthritis, thus altering toward normal the adenosine triphosphatase tissue levels. Although the mechanism of action of these agents is not definitely known, some reference of analogy of action with gold and copper compounds was made by this same investigator. Many reports[16] of therapy in lupus erythematosus appear in the literature and, further, more detailed studies in rheumatoid arthritis are constantly producing more careful observations on the chloroquine and hydroxychloroquine derivatives.

It is for these reasons that preliminary observations on Aralen and Plaquenil* are being reported. Patients selected for this study have been followed at intervals of from two to four weeks for a period of four to ten months. These 151 patients selected entirely from private office practice have been started on these compounds alone, with and without previous steroid, phenylbutazone and gold therapy. Routine laboratory studies, including urine examinations, hemoglobin, white counts and interval sedimentation rates were performed on all patients. As noted in table 1 the majority of the cases were primarily rheumatoid arthritis but others were osteoarthritis and rheumatoid combinations, scleroderma, systemic lupus erythematosus, Reiter's disease, Marie-Strümpell spondylitis and palindromic rheumatism.

The dosages employed in most cases consisted of 250 mg. of Aralen or 200 to 400 mg. of Plaquenil

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* Aralen® (brand of chloroquine) phosphate manufactured by Winthrop Laboratories.

* Plaquenil® (brand of hydroxychloroquine) sulfate manufactured by Winthrop Laboratories.

Median Nerve Compression—*Continued*

tingling or burning pain in the hand. Fracture of the distal inch of the radius, rheumatoid arthritis, granulomatous infections, traumatic tenosynovitis and calcific tendinitis may increase the pressure in the carpal canal and cause median nerve compression. Careful neurologic examination should readily differentiate the condition from median nerve compression at a higher level as a result of a supracondyloid process or cervical rib. The so-called cervical disk lesion and syringomyelia should cause little confusion.

When the diagnosis of median nerve compression in the carpal tunnel is established, operative decompression of the nerve usually effects gratifying relief of symptoms, and, except in the case of infection, is the definitive procedure.

600 S. Kingshighway

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TABLE 1
DISTRIBUTION OF CASES

Rheumatoid arthritis (Variable stages and classes)	123
Marie-Strümpell spondylitis	9
Rheumatoid "component" and osteoarthritis	5
Palindromic rheumatism	1
Scleroderma	1
Lupus erythematosus, systemic	1
Reiter's disease	1

daily, administered after the evening meal. This time of administration has been more effective in overcoming the occasional and transient dizziness which might be disabling if occurring in the daytime.

All patients in this group realized that they were receiving a new compound for arthritis but were also told that they might or might not receive benefits. It was my desire to reduce steroid medications as much as possible and to reduce or stop chrysotherapy which had been continued to total dosage beyond 1.5 gm. and in those in which gold therapy had to be discontinued for other reasons.

Successive reduction in steroids was accomplished in all cases showing Grade I and II responses as well as discontinuance of chrysotherapy in all cases of long term courses. In the few cases in which gold salts were continued, the interval was markedly lengthened in hopes of discontinuing it altogether.

Salicylates in the form of acetylsalicylic acid combinations have been given until relief was obtained from the antimalarials. Aralen and Plaquenil, in doses of 250 mg. and 200 to 400 mg. respectively, were not effective for at least three to twelve weeks. In a few cases small doses of prednisolone (below 4 mg. daily) had to be used until the antimalarials reduced clinical symptoms and signs. The results, although preliminary, in this small group of patients has been particularly significant from the standpoint of sustaining benefit for a six to ten month period and, also, I have not seen subjective or objective improvement of this degree with any other agent.

Figure 1 depicts results in the various stages of duration of rheumatoid arthritis.

Although observations in this group have been made over a short period, e.g., six to ten months, thus far the percentage of Grade I and Grade II response is 76 per cent which agrees reasonably well with Bagnall's long term cases. It has been suggested by Bagnall that the antimalarials be continued for a period of time equal to the duration of the disease prior to the start of therapy. Of this group, seven cases of less than one year duration, forty-five of one to three years and forty-three of more than three years showed Grade I or Grade II responses as depicted in table 2.

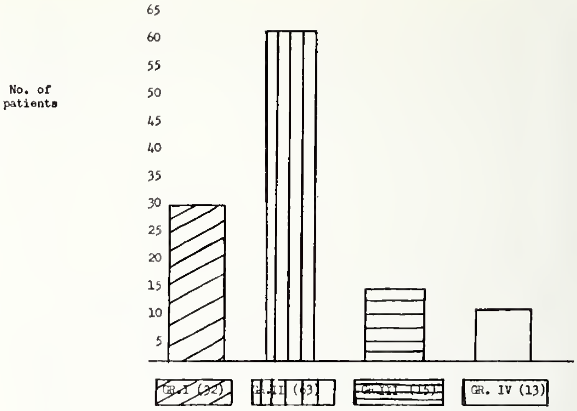

Fig. 1. Response (A.R.A.) to Aralen and Plaquenil in 123 patients with rheumatoid arthritis of varying stages and classes for from six to ten months.

TABLE 2
CORRELATION OF DURATION AND GRADE OF RESPONSE

	1 yr. or less	*1-3 yrs.*	*Over 3 yrs.*
Gr. I	3	15	10
Gr. II	4	30	33
Gr. III	0	5	11
Gr. IV	1	2	7

Nine cases of Marie-Strümpell spondylitis have been observed in this study and five to date have exhibited a Grade II response. It is interesting to note that three of this group demonstrated an increase in chest expansion of one inch; four in forward bending of sixteen, eleven, two and seven inches, respectively; and one in increased height of one and one half inches. The forward bending motions were measured from the finger-tip to the floor with the knees fully extended. All of these patients received Aralen 250 mg. daily and all had been given other therapy including x-ray, phenylbutazone and salicylates prior to the administration of this agent. The results in this group are represented in table 3.

Included in the cases of rheumatoid arthritis are two juvenile cases. One of these, when first seen four years ago, had been receiving 100 mg. of cortisone daily for six months, yet showed

TABLE 3
MARIE-STRÜMPELL SPONDYLITIS: RESPONSE TO ARALEN FOR 6-10 MONTHS

Age	*Sex*	*Daily dose (mg.)*	*I.C.E.*	*I.F.B.*	*I.H.*	*Responses (Grade)*
45	F	A. 250	0	0	0	IV
25	M	A. 250	1″	16″	0	II
35	F	A. 250	0	0	0	III
38	M	A. 250	0	0	0	II
56	M	A. 250	0	0	0	IV
23	M	A. 250 P. 200	0	11″	0	II
47	M	A. 250	1″	2″	0	II
30	M	A. 250	0	0	0	III
41	M	A. 250	1″	7″	1½″	II

I.C.E.—Increased chest expansion
I.F.B.—Increased forward bending to floor
I.H.—Increased height

marked activity with fever curves, red, hot and tender joints, elevated sedimentation rates, leukocytosis, a normal Antistreptolysin titre level plus typical periarticular swellings and inability to turn in bed. At that time with the aid of multiple intra-articular hydrocortisone injections, prednisone 20 mg. daily, and salicylates and energetic physical therapy this 9 year old boy was restored to 70 per cent activity. By the time 250 mg. of Aralen daily was initiated, prednisone could not be reduced below 15 mg. daily without return of marked joint activity. However, after eight months of Aralen therapy, reduction of this steroid to 6 mg. was accomplished. The second juvenile rheumatoid case presented no evidence of decreased bilateral knee and ankle joint effusion even after salicylates and prednisone, intra-articular hydrocortisone and intensive physical therapy; yet, after Aralen therapy for six months the effusion disappeared. Although encouraging, only time will relate the ultimate value of these agents in these juvenile cases of rheumatoid arthritis.

Of special interest also is a case of a typical Reiter's disease with an onset of diarrhea, conjunctivitis, urethritis and marked arthralgic manifestations, resistant to all acceptable methods of treatment. Massive doses of ACTH were discontinued because of hyperglycemia and instead prednisone, 20 mg. daily, became necessary. With the aid of Aralen, and later Plaquenil, this prednisone dosage was successfully reduced to less than 1 mg. daily without recurrence of arthritis symptoms.

Another associated collagen disease, scleroderma, has been treated for ten months with Aralen, and later Plaquenil, with successful discontinuance of all prednisone dosage, whereas 10 to 15 mg. were required for even poor control. Interestingly enough, the state of severe alopecia was completely reversed and this female now has a full and complete hair growth as well as no joint activity. A case of systemic lupus erythematosus confirmed by bone marrow, peripheral blood studies and a general clinical symptomatology received Aralen and Plaquenil with the ability to reduce cortisone from 75 mg. daily to 30 mg. and with the patient working forty-eight hours per week without joint exacerbation.

Although Bagnall reports the dosage of 250 mg. of Aralen as an adequate average dose, several cases in this group of osteoarthritis with a suspected rheumatoid component were given only 125 mg. daily for ten months with some objective evidence of less swelling as well as improved hand grips as measured by a rolled blood pressure cuff. With Plaquenil, 200 mg. daily, this type of case deserves further clinical studies.

Undesirable side reactions occurred in eighteen or about 12 per cent of those cases receiving 250 mg. of Aralen daily; and these were reduced to nine or about 6 per cent by substitution of 200 mg. of Plaquenil daily. Only 5 per cent of the total number of cases required discontinuance of both compounds. Table 4 shows the various epidermal, gastrointestinal and neurologic symptoms encountered in these cases. All of these side effects promptly subsided upon discontinuance of therapy.

TABLE 4

INCIDENCE OF SIDE EFFECTS WITH ARALEN AND PLAQUENIL IN 151 CASES RECEIVING DAILY DOSES OF 250 MG. AND 200 MG. RESPECTIVELY

	Aralen	*Plaquenil*
Skin (excematoid and purpuric)	4	0
Gastrointestinal		
(Nausea and vomiting)	7	5
(Diarrhea)	2	2
(Constipation)	1	0
(Anorexia and weight loss)	1	0
(Abdominal cramps)	1	0
Nervous system: nervousness, headache, dizziness	1	1
Discoloration nails and brittle hair	1	1
	18 (11.9%)	9 (5.9%)

In spite of a history of quinine sensitivity, one of the patients received first Aralen and later Plaquenil. An intolerance to both compounds occurred. In view of this observation it might be wise to proceed carefully with the antimalarial compounds when there is a history of quinine sensitivity.

Further analysis of response in relation to the stage of arthritis demonstrated a rather erratic pattern in these short term cases (table 5). Again the stage, class and grade of response is given as developed by Steinbrocker, et al.[21] for the American Rheumatism Association. For clarification of these standards, they are outlined.

TABLE 5

CORRELATION OF GRADE OF RESPONSE AND STAGE OF DISEASE

	Stage	*Stage*	*Stage*	*Stage*
	I	*II*	*III*	*IV*
NO. OF CASES	33	75	7	2
Grade I	13	14	1	0
Grade II	15	47	1	0
Grade III	2	8	1	0
Grade IV	3	6	4	2

STAGE OF DISEASE

I. Early (osteoporosis, but no destructive radiological changes; no nodule tenosynovitis).

II. Moderate (slight cartilage or bone destruction; nodules and tenosynovitis may be present in this and more advanced stages).

III. Severe (cartilage or bone destruction, extensive muscle atrophy, subluxation, ulnar deviation).

IV. Terminal (Stage III plus ankylosis).

CLASS OF FUNCTIONAL CAPACITY

I. Completely normal.

II. Adequate (conducts normal activity despite handicap).

III. Limited (performs few or none of the usual duties, occupation or self-care).

IV. Incapacitated (little or no self-care).

GRADES OF RESPONSE

I. Complete remission (no positive laboratory or systemic signs of rheumatoid activity; irreversible anatomic changes may persist).

II. Major improvement (minimal residual joint swelling and activity may persist).

III. Minor improvement (minimal residual joint swelling and activity may persist).

IV. No improvement or worse (laboratory and clinical data same or worse).

After many years of desperate attempts to control such painful and disabling disease it is enlightening to have such promising agents as these. Even in 1929 Forestier[7, 8] introduced short term and large dose gold therapy and later advocated the use of copper salts in the treatment of rheumatoid arthritis. Many years followed before modified and reasonably safe programs and vehicles for administering gold salts as outlined by Freyberg[22] were accepted. However, at this time many excellent clinicians still see little use for these metallic salts in any case of rheumatoid arthritis and still condemn their usage. Unfortunately, many of these same clinicians state that gold salts should not be used and yet have had little experience with chrysotherapy in the management of rheumatoid arthritis.

During the years of World War II and subsequent years, cortisone was discovered and found to be beneficial by Hench, et al.[23] Since then, many more corticosteroid compounds and combinations have been introduced but still carry with them certain undesirable side effects. The cortisteroids as well as the corticotropin preparations, however, are particularly useful when employed with wise supervision. In fact, it is not unreasonable to believe that small, tailored doses of these compounds may be used along with salicylates in the active case until the delayed and longer acting agent becomes effective. Such is the manner in which gold salts have been employed by many clinicians.

In new cases in this series, small doses of prednisone compounds combined with salicylates were used when the latter alone would not relieve the patient. From two to twelve weeks of either Aralen or Plaquenil treatment was required before reduction of supplemental chemotherapy was permitted. When used in tolerated dosage and over a sufficient period of time, there appears to be a tremendous therapeutic potential in the antimalarial drugs; however, larger series of cases and more prolonged periods of observation will be necessary to completely explore their mechanism of action and the long term results.

Plaquenil in this study did not have as many side effects as Aralen and thus appears to be a more practical compound. No serious side effects have been observed with either compound although it may be noted that one patient demonstrated a leukocyte count of 4,000. Other laboratory studies gave no evidence of hepatic or renal disturbance. Gastrointestinal intolerance was the most common side effect but this was quickly relieved when the drug was discontinued. It would seem more desirable in the acute rheumatoid arthritic patient that is not well controlled on salicylate therapy, to choose either Aralen or Plaquenil before turning to chrysotherapy. Although the response seen in this series in six to ten months is far from rapid, the cases showing major improvement and a temporary remission are so encouraging that it is possible that these antimalarials may in time replace gold therapy.

Approximately 50 per cent of the cases reported were previously on gold therapy which, as least to the present, has been discontinued. It is, of course, realized that many cases on gold salts will not relapse until after six months of discontinuance of treatment. Aralen and Plaquenil in therapeutic doses have resulted in general improvement with a relatively low incidence of side effects, at least one half that observed in patients receiving gold. Neither were the side effects as serious or prolonged as those seen with chrysotherapy.

SUMMARY AND CONCLUSIONS

Aralen, 250 mg. daily, or Plaquenil, 200 to 400 mg. daily, resulted in Grade I or Grade II responses in 100 patients (72 per cent of the 132) treated for rheumatoid arthritis and Marie-Strümpell spondylitis. The initial daily dose of Plaquenil was 600 mg. and it appeared that 400 mg. daily was the most effective maintenance dose. As these studies continue it may be learned that revision of this dosage schedule is advisable. Improvement, both objective and subjective, was observed in four to twelve weeks in most cases. Only minor side effects were noted and these were reduced by 50 per cent by changing from Aralen to Plaquenil. Although these preliminary observations over periods of six to ten months are far from conclusive, this new form of antirheumatic therapy is worthy of considerably more clinical study. Even if short term improvement occurs with these agents they will still retain their place in the management of rheumatoid arthritis, because, with these and only with these compounds is response so complete. Further, it is well realized that in a systemic disease such as rheumatoid arthritis, antimalarial therapy probably touches on only one facet of the complex pathophysiology. It is hoped that further observations over a much longer period of time will be possible in this group of cases.

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FROM MEDICARE TO INSURANCE POST

Dr. Paul I. Robinson, former head of Medicare, has joined Metropolitan Life Insurance as coordinator of medical relations. Dr. Robinson recently retired as a major general from the Army Medical Corps.

The insurance company said the phenomenal demand for accident and sickness coverage makes it imperative that the industry have medical administrators of Dr. Robinson's capacity to help work out some of the problems. These concern more mutual coordination and cooperation between the insurance industry and the medical and hospital professions, the firm added.

Dr. Robinson served in the European Theater in World War II and in Korea in 1954 and 1955.

AMEF CAMPAIGN PROGRESSES

Work on the AMEF campaign to reach its goal—that goal being merely more contributions by more members than last year—is progressing. On October 1, the date set for the beginning of the campaign, 68 per cent of all component societies had started their work. Eight counties have too few members to warrant a committee and an officer of the Society has been asked to serve in those instances. Only two counties have expressed an opinion that more contributions will be obtained without the campaign and committees working in the counties. Chairmen of committees received in time to be listed in this issue of MISSOURI MEDICINE are:

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James A. Reid, M.D., Marshall, Saline County.

Joe L. Separs, M.D., Cabool, South Central Counties.

Roy Pearse, M.D., Nevada, West Central Counties.

Seborrheic Dermatitis of the Scalp

Cadmium Sulfide Shampoo in Treatment

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THE CAUSE OF seborrheic dermatitis of the scalp (dandruff) remains obscure.[1] The disease seems to be a disorder of the sebaceous function of the epidermis and its sebaceous glands so that the scalp becomes covered diffusely with fine, flaky scales.

Traditional medications have contained various keratolytics, coal tar derivatives, resorcinol and sulfur. More recently, sulfur salts, chiefly of selenium, have been used widely with varying degrees of success. Objections to a popular selenium disulfide preparation include its ability to irritate the eyes, its potential toxicity if absorbed, and the repeated observation that its prolonged use makes the scalp even oilier.

The therapy of seborrheic dermatitis is still empirical, not simple enough, and not wholly satisfactory. One seeks to incorporate medication in a shampoo so that it is easy to use, odorless, nontoxic, therapeutically effective, and does not discolor the hair.

Cadmium sulfide is an inert salt with low toxicity. Death due to the ingestion of cadmium has not been reported.[2] Cadmium was fed to pigs for ascariasis at a concentration of 68 mg. per pound of food for three days to test its ascaricidal effect, and no untoward reactions were noted.[3] Tipton[4] assembled revealing data on cadmium concentrations in human kidneys obtained at autopsy. On the basis of fresh material, there was more cadmium in the renal tissues of a man with no known exposure to cadmium than in pigs that had been fed cadmium as an ascaricide.

For a year and a half (since December 1956) I have used a cadmium sulfide suspension in an agreeable detergent base (Capsebon®, Pitman-Moore) in the treatment of seborrheic dermatitis of the scalp in 350 patients, of whom 247 were followed for six months or more. The remainder were lost to follow-up observation. The patients who were adequately followed had either seborrhea sicca or seborrhea oleosa, and many of them were under concurrent treatment for acne. Their ages ranged from 10 to 65 years.

The method of treatment with cadmium sulfide shampoo was as follows: The individual was instructed (1) to wash the hair with an ordinary toilet soap or any shampoo of his choice; (2) to rinse the scalp thoroughly with water; (3) to apply the cadmium sulfide shampoo to the wet scalp in a quantity sufficient to yield a generous lather, allowing it to remain on the scalp for from 5 to 10 minutes; then (4) to rinse the cadmium from the scalp thoroughly. The patients were allowed to use the cadmium shampoo as often as they desired. The usual intervals were from three to seven days.

Results of treatment were classified as follow: cases achieving absence of scaliness, relief from pruritus and diminution of oilness were classified as "good"; cases showing definite subjective and objective improvement in these three criteria were classified as "improved"; and cases unimproved as to scaliness, pruritus or oiliness were classified as "failures."

Of the 247 patients adequately followed up, the results were as follows: 91 (36.8 per cent) were "good"; 136 (55.1 per cent) were "improved," and 20 (8.1 per cent) were "failures."

One patient under treatment with cadmium sulfide shampoo developed typical contact dermatitis with pruritus, extreme erythema and some vesiculation. Patch tests with the cadmium sulfide shampoo yielded a 1 to 2 plus reaction.

SUMMARY

A proprietary 1 per cent cadmium sulfide shampoo has proved in my experience to be a simple, safe, nontoxic therapeutic agent for seborrheic dermatitis of the scalp. It is odorless, does not discolor the hair and does not augment oiliness. It was highly acceptable to the patients and was effectual in eliminating or diminishing pruritus and scaliness, yielding improvement in 92 per cent of 247 cases.

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Behçet's Recurrent Disease

Analytical Review of the Literature

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BEHÇET'S RECURRENT disease is a chronic infectious disease, caused by a virus, and is generally characterized by recurrent iridocyclitis, or iritis with hypopyon, aphthous ulcers in the mouth and genitalia. It is a generalized disease with systemic manifestations. It is not limited to any specific organ; on the contrary, it may invade every organ and the mentioned triple symptom complex may not be present.

HISTORICAL SURVEY

In 1937 Behçet, professor of dermatology at the University of Istanbul, published the first of a series of papers.[12, 13, 14, 15, 16] Many differential diagnoses were considered and ruled out. As the clinical picture could not be fitted into that of any known disease, the author suggested a new clinical entity. Biopsies were obtained in several of his cases and, on the basis of microscopic lesions suggesting inclusion bodies, he considered the possibility that a virus was responsible for the disease. As Behçet himself pointed out,[177] this disease is not new. It was probably known to Hippocrates. It is interesting that a similar eye involvement was described by Hippocrates in his "Third Book of Endemic Disease." The whole passage runs as follows:

"VII. There were other fevers also, which I shall describe in due course. Many had aphthae and sores in the mouth. Fluxes about the genitals were copious ('frequent' 'common'), sores, tumours external and internal; the swellings which appear in the groin. Watery inflammations of the eyes, chronic and painful. Growths on the eyelids, external and internal, in many cases destroying the sight, which are called 'figs.' There were also often growths on the other sores, particularly in the genitals. Many carbuncles in the summer, and other affections called 'rot.' Large pustules. Many had large tetters."[98]

According to Freigenbaum,[63] the whole paragraph suggests that the condition described by Hippocrates may be identified with the disease reported in 1937 by Behçet of Istanbul.

Relapsing iritis with hypopyon has been known to ophthalmologists for nearly 200 years. Recurrent aphthous ulcers in the mouth and genitalia have been familiar to dermatologists for several decades.

One or two of the cardinal symptoms of the disease were described, prior to 1937, by the following authors: Janin[94] in 1772, Bitsch[19] in 1879, Jacobi[92] in 1894, Reis[148] in 1906, Scherber[154] in 1916, Koeppe [108] in 1917, Sibley [165] in 1914, Becker[11] in 1920, Fordyce[65] in 1920, Fox[68] in 1920, Stahli[168] in 1922, Chauffard[34] in 1923, Gilbert[77] in 1923, Weve[182] in 1923, Gray[81] in 1924, McDonagh[123] in 1924, Pils[143] in 1925, Nakayama[127] in 1926, Schnable[156] in 1927, Carol[31] in 1928, Samek[153] in 1929, Kleeberg[107] in 1930, Kumer[112, 113, 114] in 1930-1932, Jaffé[93] and Walter[180] in 1930, Matras,[121] Ravel,[147] Hippel[88] and Wien[184] in 1932, O'Leary[130] in 1933, Ebert[56] and Talalow[172] in 1934, Cole[37] in 1935 and Blobner[22] in 1937.

All three cardinal symptoms of this disease, prior to 1937, I believe, were first described by Sibley[164] in 1899. However, in his case eye lesions were described only as irritation of conjunctivae. Planner and Remenovsky[144] in 1922, Fuchs[74] in 1926, Adamantiades[1] in 1931, Dascalopoulos[46] in 1932 and Whitwell[183] in 1934 described all three typical cardinal symptoms.

All these observers, however, considered the symptoms in the mouth, eyes and genitalia as complicatoins of certain well-known diseases such as tuberculosis, syphilis, rheumatism and staphycoccal allergy and all of these authors failed to point out that these manifestations are the cardinal symptoms of an independent disease. It was Behçet who first definitely demonstrated that these three symptoms occur in a distinct disease; he was even able to point out later that this disease is generalized. Credit should be given to Behçet for calling attention to this disease for the first time.

The next landmark appeared in 1946 when Jebejian and Kalfayan[96] reported a case in which they were able to make frequent ophthalmoscopic observations during recurring attacks of uveitis. As a result, it was concluded that the fundamental lesions of the ocular fundus were an inflammatory reaction involving the smallest veins, often accompanied by hemorrhage and at times complicated by sudden thrombosis.

The first American report was published in 1946 by Curth.[43] Since that time several cases have been reported all over the world.

Sezer's[162, 163] name should be mentioned since he reported many more cases than any other author and isolated the virus of this disease.

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PURPOSE AND SCOPE

In order to limit as sharply as possible the scope of this review the material has been limited to those cases showing all three aspects of the triad. For the preparation of this paper, almost all the world literature was analyzed and abortive cases were not included in this review. It was my belief that in this way I could be able to show the difference between this disease and the Fiessinger-Leroy-Reiter's syndrome and erythema multiforme which were listed, by Robinson[149] and others, under the title of the "Ocular-Mucous Membrane Syndrome" as one syndrome. I wish to stress the fact that not always are all of the symptoms present at the same time. And all three groups of changes need not to be present simultaneously.

This review includes statistics based on 112 typical cases. (See Bibliography.)

The statistics presented here were derived independently by a process of compiling individually all symptoms listed in those cases considered to be typical.

In those cases reported by specialists a multitude of detailed symptoms related to their particular organ system were available, whereas little information related to other systems would be reported. For this reason the incidence of minor symptoms may be deceptively low. Along the same line, one may infer that changes perceptible and significant to the specialist may at times be missed in the diagnosis and care of this disease by the other various specialties.

Unfortunately, only 21 cases permitted the study of joint distribution since some authors did not specify which joints were involved.

One might think that this disease probably occurs more commonly than is supposed. Some cases may have been misdiagnosed as a constitutional disturbance. Others may have been designated by descriptive terms which are inadequate descriptions of the disease as a whole. In order to prove or disprove these possibilities, all records, for the last 25 years, in St. Louis County Hospital with diagnosis of hypopyon, iritis, iridocyclitis, uveitis, atrophy of optic nerve due to unknown cause, optic neuritis due to unknown cause, aphthous stomatitis, vulvo-vaginal ulceration, ulcus vulva acutum, and erythema nodosum, were reviewed and none of them were found to be connected with this disease. It is my belief that this disease is not common, at least in the United States of America. If it were common then some of these patients would be diagnosed, from time to time, as aphthous stomatitis, as iritis with hypopyon and as aphthous ulcers of genitalia.

Those patients who are suffering from Behçet's disease, although usually first seen by the dermatologist, gynecologist, ophthalmologist, otolaryngologist or internist, may develop serious symptoms of considerable interest to the neurologist. The ophthalmologist should be given first consideration for treatment, in order to make early diagnosis and prevent eye involvement, if this is possible. Every specialist in medicine should be aware of this disease. The disease picture cannot be accepted as an essential dermatosis with ocular complications or as an eye disease with skin complications, because these organs seem to reflect a disorder which involves more or less the whole body.

An analytical review is necessary for this disease in order to appreciate the common clinical picture. Even a relatively big series of one author has not been large enough to draw a conclusion. It would be difficult to suppose that any one observer could appreciate the full objective clinical picture of this disease in a significantly large series of cases inasmuch as an ophthalmologist will be competent about the eye findings, but he might miss the dermatological problems, and vice versa.

NOMENCLATURE

The most important of the names suggested for this disease are (1) ophthalmia lenta and iridocylitis septica (Gilbert[77, 78]), (2) staphylococcal allergic recurrent uveitis (Weve[182]), (3) recurrent iritis with hypopyon (Urbanek[179]), (4) allergic recurrent uveitis with hypopyon (Weekers[181]), (5) Behçet's syndrome, Behçet's disease and triple symptom complex of Behçet both in Europe and America.

Of these, the last ones are the most desirable since they are linked with the name of Behçet and they are well established. This morbid entity should not be called a syndrome because it is a specific disease. Also it seems unfortunate that emphasis has been laid on the "triple" nature of the disease by the name triple symptom complex, because this tends to preclude the diagnosis in cases with only two of the three main features and obscures the possibility of additional lesions (in joints, central nervous system, skin and vascular system). Since the most important character of this disease is recurrences, it is the opinion of this author that this word (recurrence) should be linked with the name of Behçet. It might then be called Behçet's recurrent disease.

GEOGRAPHIC DISTRIBUTION

This disease is not limited to any one geographical location. At first, more of these cases were reported from Turkey and neighboring countries of the Eastern Mediterranean than in any other part of the world, but they were soon reported from other European countries and almost all over the world. It is probable that the distribution merely reflected the earlier interest of physicians in Turkey and other neighboring countries. The following countries are listed according to the number of cases reported in descending order: Turkey, England, France, Switzerland, United States, Israel, Germany, Greece, Sweden, Italy, Denmark, Norway, Australia, Austria, Egypt, Argentina, Hungary, Portugal and Syria.

RACIAL DISTRIBUTION

According to present information this disease is uncommon among Negroes, only three cases, thus far, reported among Algerians[49, 70, 118] and one case from Northern Africa[21] without mentioning these patients' race. It should be kept in mind, however, that the majority of reports have been accumulated from Turkey and other European countries where the Negro population is small. Future data should help settle this point.

SEX DISTRIBUTION

Most of the victims of this disease are men, 73 per cent.

AGE OF ONSET

This disease occurs in greater majority among men, with a peak incidence between the ages of 20 and 30 years. The youngest patients reported were 11 year old males,[6, 45] and the oldest was a 72 year old female.[53] The incidence at age of onset decreases in frequency as follows:

25-29 years	28 %
20-24 years	20 %
15-19 years	14 %
30-34 years	12 %
35-39 years	8.5%
40-44 years	8 %
10-14 years	7 %
50-54 years	0.9%
45-49 years	0.9%
55-59 years	0.9%
70-74 years	0.9%

In the remaining age groups there were no other cases reported (fig. 1).

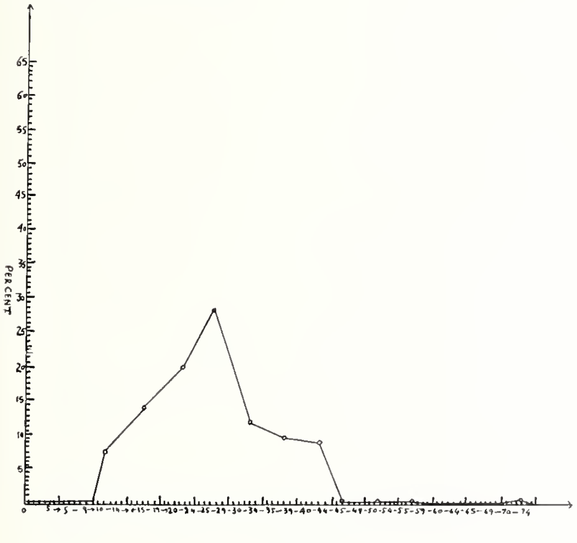

Fig. 1. Age of Onset.

CLINICAL PICTURE

The most important and essential character of this disease is recurrence. It has almost always remissions and exacerbations, wherever the involvement may be, whether eye, mouth and genital lesions or arthritis, they are always recurrent. The average interval between recurrences is two months, although intervals as short as one week and as long as two years have been reported.[101, 163] As the disease progresses, the intervals between attacks lengthen until there are finally no further attacks. The manifestations in the mouth and genitalia may continue to appear even after the eye has become phthisic, but if the disease is not complicated by a meningo-encephalitis, it recedes completely by itself after a 15 or 20 year period except, of course, for the blindness. At the time of each recurrence all of the symptoms may occur, either simultaneously or one after the other.

The average healing time of one attack is 11 days, although periods as short as three days[163] and as long as 25 days[13] have been reported.

Generally the initial symptom is aphthous ulcers of the mouth. (See Bibliography.)

This generally is followed by genital lesions and subsequently by eye lesions.

It should be kept in mind that the beginning could be arthritis,[16, 55, 69, 95, 115, 163, 178] thrombophlebitis,[1, 2] cutaneous lesions,[185] or any other symptom. The average interval between the initial symptom and the complete triad is generally 4.6 years, although intervals as short as one month[41] and as long as 17 years from the onset to the development of the full blown triad have been reported.[66]

Reports subsequent to the original description have added new symptoms involving nearly every organ, some of which were not originally included.

If one asks himself the question why, generally eye, mouth and genital organs are involved in this disease, there is no convincing answer. However, there is a structural, embryologic, anatomic and physiologic similarity between the mucosa of the mouth and vulva. Certain local and systemic infections affect both areas.[135]

In the majority of cases there is only a low grade fever, if there is no involvement of central nervous system. Fever above 100.4 F. is present in only 26 per cent of cases. Febrile episodes may come at intervals of approximately two months, lasting two or three days and it is unaffected by treatment.

According to Sezer[163] and other observers[8, 101] this disease may occur among persons living in the same house and it is contagious; however, it cannot be much so, otherwise more cases would be encountered.

OCULAR INVOLVEMENT

Involvement of the eye constitutes the gravest manifestation of this disease. Generally eye lesions are the last of the triad to appear, but it may be the first or second. The disease begins generally unilaterally and becomes bilateral without exception after three months to four years. The most important clinical characteristic of the eye lesions is recurrent attacks, which occur every three weeks to four weeks over a period of years. They are characterized by intense periorbital pain, 30 per cent, which may be unbearable and intractable pain was the cause of enucleation in 10 per cent after patients become completely blind.[1, 43, 44, 66, 69, 120, 162, 163, 174] Three patients of this group having eneucleation were complicated by glaucoma.[120, 163, 174] The eneucleation of one eye has no influence on the disastrous course of the disease in the other eye. Photophobia may be present, 5 per cent.[40, 69, 70, 115, 128, 163] Every new recurrence leaves new traces of damage in the form of posterior synechiae, 26.6 per cent, atrophy of the iris, 6 per cent,[1, 8, 70, 115, 163] vascularization of the iris, 0.9 per cent,[163] depigmentation of the iris, 0.9 per cent,[115,] atrophy of the lens, 0.9 per cent,[111] pupillary occlusion, 7 per cent,[2, 115, 163] pupillary seclusion, 5 per cent,[2, 101, 163] irregularity of pupil, 3.5 per cent,[16, 162, 163] complicated cataract, 7 per cent,[16, 18, 43, 44, 62, 141, 163, 185] and glaucoma, 5 per cent.[44, 95, 101, 120, 163, 174] An atrophic bulb is the end result preceded sometimes by attacks of secondary glaucoma. Vision is thus gradually diminished down to complete blindness; however, in one case, in spite of recidivant hypopyon for 11 years of duration, vision was normal, although in this case there was no mouth or genital lesions.[159] In this review, 33 per cent of patients were completely blind in one or both eyes. If blind in only one eye, useful vision was reduced in the other. (See Bibliography.) In 35 per cent of a second group of patients, useful vision was reduced to only light perception or some of them were able to count fingers from 0.5 to 2 meters. The rest of the patients did not have marked change in their vision, but this third group of patients was not followed long enough. Unfortunately, it is true that patients with Behçet's recurrent disease will go to complete blindness sooner or later.

It is the iritis which attracts the immediate attention in the crisis. The iris, almost always, is involved. In this review iritis was present in 50 per cent and of this group, 32 per cent of patients had associated hypopyon. Iridocyclitis was present in 18 per cent and in this group of patients 4.5 per cent had associated hypopyon.[29, 136, 163, 178] Uveitis was less common, comparatively. It occurred in 12.5 per cent of patients of which 3.5 per cent had associated hypopyon. Hypopyon is a late symptom. In addition to the combined form of hypopyon, it was present in 25 per cent of the patients alone. The vitreous is also cloudy at the time of acute attacks. All authors have noted that the hypopyon tends to disappear rapidly, in a few days, while the cloudiness of vitreous, which occurs in 30 per cent, clears slowly and sometimes incompletely. [82, 111]

Hemorrhage in the corpus vitreum may occur in 2.5 per cent of patients.[29, 48, 101] There may be floating corpuscles in the vitreous in 1.8 per cent,[21, 55] which may give the patient a sensation of looking through fog.

Inflammation and cloudiness of the anterior chamber may occur rarely, in 3.5 per cent.[62, 120, 163] In one case, Sezer[162] observed an hyphema.

According to Sezer[161, 162, 163] the ocular lesions actually begin in the retina and optic nerve and the uveal disease manifests itself later.

In this review, in 50 per cent of patients, various types of retinal involvement have been reported. If one keeps in mind the fact that in many patients examination has not been available due to the cloudiness of vitreous and later on due to occlusion or seclusion of the pupil and other complications, it could be, easily, postulated that actually retinal involvement is much more frequent than the 50 per cent incidence mentioned.

At an early stage there are changes of the vessels of the retina in 14.5 per cent of patients. In decreasing frequency the types of vascular involvement are as follows: thrombosis of the retinal arteries,[21, 101, 102, 162, 163] attenuation of vessels of retina[8, 18, 111, 142] periarteritis in the retinal vessels,[142, 162, 163] thrombosis of retinal veins,[2, 82, 96] and periphlebitis of the fundus.[163] In the acute phases retinal hemorrhages are fairly common and it occurs in 11 per cent. The other types of retinal involvement was present in 23 per cent of patients. In decreasing frequency these involvements are as follows: retinitis,[3, 6, 62, 101] choroidoretinitis[45, 79, 162, 166] detachment of the retina,[43, 44, 49, 162, 174] edema of the retina,[95, 162, 163, 175] subretinal serous fluid,[162] discoloration and atrophy of retina.[18]

According to Sezer and others[161, 162, 163] optic neuritis resulting in optic atrophy is common. However, in this review, involvement of the optic nerve occurred in only 15.5 per cent of patients. It may be masked by the iritis, neuroretinitis, central choroiditis, choroidoretinitis, periphlebitis and thrombophlebitis of retinal vessels, recurrent hemorrhages in the retina and in the vitreous, and other complications that do not permit any fundoscopic examination as mentioned before. In decreasing frequency the optic nerve involvements are as follows: atrophy of optic nerve,[1, 18, 70, 71, 79, 97, 102, 118, 166, 163] neuritis of optic nerve,[165, 181] papilledema,[69, 163,] swelling of both disk[13] and exudation at the peripapillary area.[163]

Involvement of the choroid is not rare. It was present in 12.5 per cent as choroiditis and choroidoretinitis.[21, 30, 43, 48, 66, 79, 97, 174]

These acute symptoms disappear in from five to ten days, leaving few traces, but after each attack the vision remaining is definitely diminished. The impairment of vision progresses to complete blindness in both eyes. Loss of vision develops, according to Sezer, either from atrophy of the optic nerve or phthisis of the globe. However, posterior synechia with occlusion of the pupil and secondary glaucoma or lack of transparency of the vitreous, which cannot recover during the short intervals between the frequent attacks are among the other important causes of blindness. This end result develops in some patients only after many years and in others in a short time.

It could be stated that involvement of the conjunctiva is not important, as far as the prognosis and treatment is concerned, although it is not infrequent, since in this review 16 per cent of patients had conjunctivitis.

The conjunctivitis characteristically resolves spontaneously, but it may be recurrent and keratoconjunctivitis developed in 2.7 per cent of patients.[60, 78, 101] Keratitis was present in 8 per cent of the patients and may occur as punctuate or perikeratitis. Conjunctivae rarely may become edematous;[128] hemorrhagic conjunctivitis[16] and subjonjunctival hemorrhage may develop.[29] In a second group, 15 per cent of the patients had only ciliary injection in the conjunctiva. Rarely xerosis conjunctivae may be observed, 0.9 per cent.[58]

Corneal involvement is not rare. It was present in 18 per cent, however, severe involvement such as corneal ulcer, which occurs in only 2.7 per cent of patients,[12, 183] is rare. In decreasing frequency the corneal involvements are as follows; edema,[62, 111, 131, 163, 181] cloudiness,[45, 69, 163] opacity,[40, 48, 131] infiltration,[40, 70] injection,[40, 82] and dystrophy.[141]

The following instances of ocular involvement, other than the above symptoms, have been compiled: central scotoma in 5.2 per cent,[2, 3, 95, 166, 174, 181] paracentral scotoma 0.9 per cent[142] increased intraocular tension in 5.2 per cent,[2, 67, 111, 162, 163] episcleritis in 2.7 per cent[8, 12, 166] chemosis 1.8 per cent,[62, 79] blepharospasm 1.8 per cent,[162, 163] blepharitis,[166] symblepharon 0.9 per cent,[58] pterygium,[58] posterior ring abscess 0.9 per cent,[62] and a fine cellular veil on Descement's membrane.[70]

It should be emphasized that ocular lesions begin in the retina and optic nerve and that uveal disease manifests itself later.

ORAL INVOLVEMENT

Involvement of the mouth, almost always, is present one time or an other, during the course of the disease. The ulcers of the mouth are indistinguishable from ordinary aphtous ulcers. They are recurrent and they may recur every two weeks, however, in many patients ulcers are present all the time because while some of them heal, new ones develop.[6, 102] Some patients, a few hours before the appearance of aphthous lesions, may feel a slight tickling at the site of the developing lesions.[102] They may start either as vesicles or as small nodules, which rapidly break down in twenty-four to thirty-six hours, to form shallow, ragged painful, ulcers. The ulcers may vary from small "dyspeptic" ulcers to large necrotic sloughing areas with a sharp edge and, rarely, injected margins which heal leaving a thickened scar.[43, 82] The surrounding tissue is generally unaffected. Sometimes, two or more nodules may coalesce to form a single, large, irregular and painful lesion. There may be a dozen discrete ulcers at one time and they are painful and tender and only soft food can be eaten.[17] These aphthous ulcers can be observed, in decreasing frequency, on buccal mucosa of cheeks, tongue, lips, on soft[21, 185] and hard palate,[118, 125] tonsils,[163, 185] glottis,[163] gums[43] and pharynx.

INVOLVEMENT OF THE URINARY SYSTEM

The manifestations on the genital organs are aphthous ulcers. As indicated before, in the beginning, it was considered as one of the main symptoms for diagnosing this disease. In the male patient, these ulcers, most of the time, develop on the scrotum. They are usually superficial with a sharp margin and slightly depressed, weeping, yellowish base. At times, however, these ulcers, also, may start as deeper, tender nodules which, as they break down, develop indurated, granulating edges.[69, 174] The ulcers recur every two weeks or so, some times more than one appearing at one time. Most of the time they do not leave scars,[82] but sometimes they do.[174] Less frequently the glans penis,[17, 30, 41, 60, 67, 79, 132] penis[67, 82, 97, 101, 174, 183, 185] and prepuce[30, 79] may develop ulcers as does the scrotum.

Recurrent epididymitis occurs in 4.5 per cent.[29, 101, 102, 129] In one patient during a three year course, epididymitis recurred seven times.[102] It is not painful.

Recurrent orchitis also occurs in 4.5 per cent.[29, 43, 45, 79, 162] Both testes may be affected at different times and it is painful, also fever accompanies the orchitis.[129]

Urethral discharge is rare. It occurs in only 1.8 per cent.[43, 102] Urethroscopic examination was done on one of these patients, and circumscribed superficial ulcers were found which were considered the source of the discharge.[102] No specific microorganism was found in the discharge.

The following instances of genito-urinary involvement, other than the mentioned symptoms, have been compiled: hydrocele (1.8 per cent),[95, 162] varicocele (0.9 per cent),[101] paralysis of the bladder (0.9 per cent),[166] and complete urinary retention as a complication of nervous system involvement (0.9 per cent),[132] clinical signs of trigonal ulcers (0.9 per cent),[82] enlarged prostate (0.9 per cent)[43] and hematuria (1.8 per cent).[29, 116]

In the female patients the same type of ulcers as in males occur. They are located generally on the labium minus.[12, 64, 109 and 158, 162, 163, 181] The second commonest place is the labium majus,[64, 109, and 158, 120, 181] and rarely on the clitoris.[162]

In some cases ulcers may be as high up as the cervix and there may be fenestration of the labium minus.[141, 181] In others, the whole vulvae may be progressively destroyed by succesive out-breaks. Healing may be associated with considerable scarring, further deforming the vulvae. Lesions in the vagina or on the cervix may often be associated with a profuse purulent discharge, from which, however, no specific organisms can be cultured. The genital ulcerations are much more destructive in the women than in the men.[43] These ulcerations rarely may extend to perineum,[128, 181] inguinal region, buttock, and internal surface of the thigh.[128, 181]

CUTANEOUS INVOLVEMENT

The cutaneous involvement is common in this disease. In 65 per cent of patients various types of cutaneous involvement have been reported. The most important of these is erythema nodosum in, 23 per cent, which appears in association with a high fever. The nodules tend to be small, few in number, and cyanotic in color. They are painful when pressure is applied and disappear in from 20 to 30 days without leaving any trace, but they are recurrent. Non-specific lesions are present in 12.5 per cent.[12, 18, 25, 45, 49, 60, 96, 97, 101, 111, 128, 136] In this group, most of the patients showed hypersensitivity to skin tests and injections. At least at certain times all intradermal tests may result in a reaction which, in some cases, is indistinguishable from a positive reaction to the test. It is interesting to note that even a prick with a sterile needle results in a pustule.[2, 95, 97, 101]

Acneiform lesions occurred in 6.2 per cent,[25, 43, 67, 69, 78, 79, 102] on the forehead, face and body. Furunculosis is not rare; this occurs in 5.3 per cent.[17, 21, 41, 69, 95, 166]

Other less common lesions which have been reported are: papular lesions, which are small, solid, slightly tender, on the different parts of the body, particularly the forehead, cheeks, and legs. They are of normal skin color or sometimes a little dusky, and according to Thomas[174] they are due to thrombosis of the superficial veins; also papulomacular, and papulopustular lesions, 6.2 per cent;[12, 30, 79, 162, 163, 183] pustular and vesicopustular lesions, 5.3 per cent;[3, 8, 25, 29, 79, 185] eczema, 2.7 per cent;[67, 111, 185] urticaria, 0.9 per cent;[116] erythema multiforme, 0.9 per cent;[18] erythema simplex, 0.9 per cent;[131] pyodermia, 0.9 per cent;[8] ulcers on the thigh, 1.8 per cent;[132, 136] on the foreleg 1.8 per cent,[25, 132] and on the arm, 0.9 per cent.[132]

ARTHRITIS

Arthritis is one of the most common symptoms, and it could be considered as one of the cardinal symptoms. According to Sezer,[163] all patients with Behçet's recurrent disease have had joint involvement similar to polyarticular rheumatism. However, in this review there was only 60 per cent involvement of joints, although it is possible that at the time of some case reports arthritis had not yet developed, and probably Sezer's statement is right. Joint involvement may be the first symptom of this disease, in 7 per cent,[16, 55, 69, 95, 115, 163, 178] or it may develop later in the prolonged course of disease. In the great majority of cases it is polyarticular, migratory, and symmetrical in character, but rarely it can be monarticular and the joint affected in any one patient may be always the same one.[141] Different joints may become involved simultaneously or successively. Symptomatically the involved joint is tender and spontaneous pain is so severe that the patient may be completely disabled and may be confined to bed for six months. Joints of the lower extremities are more frequently affected than joints of the upper extremities, and large joints take precedence over small joints.

Arthritis may be associated with fever and weight loss which may last several months. Arthritis is also recurrent as are the other symptoms.

In decreasing frequency the joints involved are as follows: knee, ankle, wrist, fingers, elbow, hip, shoulder, temporomandibular, spine, toe, metatarsal, metacarpophalangeal, and interphalangeal joints.

Hydrarthrosis is the most frequent type of joint involvement occurring to some degree in 19 per cent of all cases. The involved joint may have limitation of movement and a variable degree of pain. After such an episode the joint function returns to normal, and no residual joint deformities remain.

There are no characteristic radiographic findings.

Rarely crepitant tenovaginitis (0.9 per cent[67]) and myositis (0.9 per cent[43]) have also been reported.

GASTROINTESTINAL INVOLVEMENT

In the great majority of cases there are vague gastrointestinal discomfort[129] and symptoms, such as nausea and vomiting,[30, 62, 82, 174] anorexia,[16, 70] constipation[70] or diarrhea.[30, 70] Epigastric discomfort and tenderness, occasionally, may develop during the attacks of iritis and it may subside as the attacks subside.[70]

Organic involvement of the gastrointestinal tract is not rare and ulcerative hemorrhagic colitis is the most frequent.

The cases of this complication have been reported by Jensen,[97] Koch[110] (x-ray examination revealed typical picture of colitis) and according to Faaborg-Anderson[60] two more cases reported from Denmark whose autopsy disclosed whitish plagues measuring 31 mm. in diameter on the mucous membrane of colon and the lowest part of the small intestine. According to Curth,[43] Bechgaard observed a young man who suffered from Behçet's recurrent disease preceded by ileitis. One case of Gay's,[82] who had hematemesis due to acute ulceration of gastric mucosa, was reported.

Occasionally, palpable liver,[45, 101, 132] ulceration of rectum[70, 185] and anal mucosa[178] have been reported.

It could be easily concluded that, on the basis of these observations, all parts of the gastrointestinal tract may be involved by ulcerations, as occur in the mouth, at times, during the course of this disease.

INVOLVEMENT OF CARDIOVASCULAR SYSTEM

Thus far, cardiac involvement has been infrequently noted. However, vascular lesions are common and they were clinically noticeable in 26 per cent of the patients. Thrombophlebitis of the extremities is common[1, 2, 3, 69, 79, 82, 109, 120, 129, 131, 174, 185] and may be the first sign of this disease (1.8 per cent[1, 2]). It is generally migratory and multiple, occurring simultaneously in multiple foci. It involves subcutaneous veins of upper and more commonly of the lower extremities. Rarely, involvement of the femoral veins, inferior vena cava,[174] and the brain stem venous system may occur.[82] The involvement of retinal veins has been discussed before.

Microscopic examination from the different parts of the body[17, 43, 69, 99, 129, 141, 166] showed consistently that there was involvement of the vessels, and the venules are involved in an inflammatory reaction to a greater extent than the arterioles.

On the basis of these observations it could be concluded that, probably, all the symptoms occurring on the different parts of the body are the secondary result of venous system involvement.

In one case there was digital gangrene with rarefaction of the underlying bone[132] and in another case there was acrocyanosis.[40]

INVOLVEMENT OF RESPIRATORY SYSTEM

Occasionally, in the absence of any other explanation, recurrent hemoptysis, as much as 1000 cc., pleurisy, viral pneumonia,[23] bronchitis,[40] and aneurism of lung's arteries,[177] have been reported.

It is interesting to note that experimental animals die due to hemorrhagic lobar pneumonia.[162]

A case, which did not have eye involvement, was complicated by laryngeal obstruction requiring repeated temporary tracheotomies, was reported by Kenet.[103]

INVOLVEMENT OF NERVOUS SYSTEM

Central nervous system involvement is the most important one since it is the cause of death in most of the patients. Thus far, five deaths are reported and three deaths were the result of central nervous system involvement.[17, 82, 166] It may invade any part of brain and spinal cord. Central nervous system involvement, also, shows the basic and essential character of the disease since they are recurrent[141, 166] and that they have no predilection for any particular part of the brain. It may invade any part of the central nervous system at any one time or as it recurs it may migrate from one part of the central nervous system to another localization. Because of this reason the diagnosis of encephalomyelomeningitis was made in many cases.[141] In this review 12 per cent of the patients had central nervous system involvement.[1, 6, 17, 45, 82, 109, 132, 141, 166, 174]

The clinical picture depends on the involved part of central nervous system. It could be said that in most of the patients there are all the clinical signs of encephalitis. Headache is present in all the patients with central nervous system involvement and it may be present in most of the patients without clinical evidence of central nervous system involvement. They may be apathic,[17] lethargic,[141] drowsy[141] and disoriented,[132] but some times, irritability,[163, 174] insomnia,[163] vomiting,[82, 141, 174] twitching,[82] convulsions,[17] blurred vision[141] and diplopia,[45] nonreactive pupils and ocular deviation,[82] fainting spells[174] and later delirum and coma may develop. Local symptoms are those of irritation and paralysis depending upon the part of the brain affected; these may be sensory, motor or both. The same patients, in addition to these symptoms, may develop signs of meningitis,[174] nuchal rigidity, Kernig's sign,[82] dizziness,[17, 141] mental and psychic manifestations, such as restlessness, irritability, apathy and drowsiness.

Signs of cerebellar involvement,[141] intention tremor,[166] nystagmus,[45, 82, 132, 141] tremors and postural defects,[101, 109, 141] asynergy, speech disturbances,[109, 141, 166] dysarthria,[109, 132] ataxia, positive Romberg's sign, dysmetria and difficulty of controlling muscles have been observed.[109, 141]

Paralysis of cranial nerves is not rare. Thus far, paralysis of the III,[82, 141] IV,[82] V,[82] VI,[82, 141, 166] VII[82, 141, 166] nerves have been reported.

There may be persistent pyramidal tract involvement[82, 132] as indicated by positive Babinski's sign and ankle clonus.[141, 166] Also insidiously progressive disorder of mixed extrapyramidal tract involvement has been observed.

Signs of bulbar palsy, difficulty of swallowing[82, 166] and speech,[109, 141, 166] and involuntary outburst of laughing and crying, may occur.[132, 141]

Signs of spinal cord involvement may be present. In one case there was typical Brown-Séquard syndrome[82] and in another case all modalities of sensations were depressed below the T 10 dermatome.[132] Other spinal cord signs are as follows: hyperactive patellar reflexes,[109] absent lower abdominal reflex,[82, 132, 141] paralysis of the bladder[166] or complete retention of urine,[132] and hyperesthesia.[174] In one case myelography was suggested of narrowing of the available subarachnoid space over a large area of the spinal cord in the lower thoracic and lumbar region, and clinical diagnosis of an acute myelitis and spinal arachnoiditis was made.[132]

Spastic tetraplegia, paraplegia and monoplegia may occur with combinations of cerebrospinal involvement and they may be recurrent.[109, 132, 166]

Residual weakness may be present as a result of these attacks. Patients may develop mental deterioration,[141] as impairment of memory,[17, 109] nervousness, agitation,[69, 163] euphoria, involuntary outburst of laughing, and crying. They may go into dementia, also parkinsonismal features may develop.[132]

Cerebrospinal fluid's cell count may be normal[141, 174] but pressure may be increased,[174] and in the majority of cases, protein as high as 5200 mg./100 cc., and marked polymorphonuclear pleocytosis is present. The electroencephalogram shows pathologic changes.[45, 132, 166]

In summary, from a clinical point of view, the neurologic disorder usually conforms to one of the following patterns.

1. A brain stem syndrome,[132] which either may be episodic[141] or may progress in an irregular manner to death from bulbar paralysis.[82]
2. A meningo-encephalomyelitic syndrome.[166]
3. In some cases there are no specific neurologic findings, but, patients are confused and may be agitated.
4. As a result of these syndromes, patients may have weakness of one or all extremities, mental deterioration, progressive to dementia and in some cases to Parkinsonism.

MISCELLANEOUS

Occasionally the following clinical findings have been observed among patients suffering from Behçet's recurrent disease: recurrent involvement of the submaxillary glands,[96] parotitis,[10] (in this patient with parotitis there was no genital ulcers), chronic rhinitis,[17] paronychia,[45] inguinal,[45, 60, 70, 118, 132] axillary[132] and submaxillary adenopathy, and splenomegaly.[43] Time will tell whether these are truly related or merely coincidental findings.

LABORATORY FINDINGS

Viremia is present in these patients and its degree may be correlated with the clinical manifestations of the disease. The virus is excreted in urine and is thus eliminated from the circulatory system.[163] Occasionally, as secondary invaders, staphylococcus aureus[17] and staphylococcus albus[1, 46] have been isolated.

Ascorbic acid saturation test may show reduced serum levels, but this finding might be secondary to poor food intake due to mouth ulcers.[141]

Patients are generally anemic;[116, 163] however, from the present data any positive conclusion can not be drawn. It is possible that this is also one of the end results of malnutrition.

Generally, sedimentation rate is high during the acute attacks and there is mild leukocytosis. There are unusually numerous lymphocytes which contain azurophilic granulations and neutrophils which contain toxic granulation. There is also a shift to right. The presence of reticulo-histocytosis shows that the virus causing the disease is mesenchymetrophic.[163]

The positive complement fixation and neutralization tests indicate that special antibodies against this virus are being produced in the blood of patients who suffer from this disease. As the degree of viremia increases in the blood the titer of the complement fixation reaction decreases. On the contrary, as the degree of viremia decreases the titrate of the complement fixation reaction increases. The complement fixation test may become negative in patients who have had no manifestations of the disease for 10 years.[163]

IMMUNITY

Since recurrent attacks are so common one would not expect this disease to confer any significant immunity. However, tests on patients and animal experiments showed that every attack tends to give a short lived immunity of one month. Nevertheless, subsequent attacks tend to be milder.[163]

Occasionally there are elevations of alpha[116] and gamma[79, 116] globulin, elevation of plasma fibrinogen,[132] and albuminuria.[8, 48]

No results can be drawn from skin tests since false reactions are common.

The typical synovial fluid is turbid, viscid, greenish yellow. Specific gravity 1.025 and white cells are generally polymorphonuclears. The effusion is sterile.

(Refer to section of neurological involvement for cerebrospinal fluid findings.)

MORBID ANATOMY

Pathologic examinations have been done on the enucleated eyes and at postmortem.[17, 166, 177]

Pathology of Eye: (See[43, 44, 69, 129, 163, 174]).

Gross Examination: The cornea is hazy and there may be bleeding in it. The eye does not transilluminate well. The anterior chamber is shallow. The vitreous is jelly-like. There is considerable anterior choroidal hemorrhage in the anterior half of the vitreous cavity. The muscle fibers show an intense inflammation and, in some places, the necrotizing process is extreme.

Microsopic Examination Conjunctiva: The conjunctiva shows an intense inflammation with dilatation of the vessels and a massive infiltration of acute and chronic inflammatory cells. The muscle fibers show an intense inflammation and, in some places, the necrotizing process is extreme.

Cornea: The corneal epithelium is either thinned or entirely missing due to previous edema. The stroma shows a slight, diffuse keratitis with vascularization, or thinning and atrophy of the fibers and separation of the lamellae by edema fluid. Bowman's membrane may be intact or it may be replaced by a pannus peripherally.

Limbus: Schlemm's canal is dilated and contains blood. The trabecula is inflammed and fibrosed. The deep scleral vessels are engorged.

Sclera: There is a scleritis or episcleritis and a tencsitis.[163] The episcleral vessels are surrounded by inflammatory cells.[43]

Anterior Chamber: There is a serohemorrhagic fluid containing scattered polymorphonuclear leukocytes.[44, 163]

Iris: It may be fibrotic and atrophic. There is an intense iritis[43, 163] with formation of a fibrovascular membrane on the surface and infiltration of the vessel layers and posterior surface with masses of round cells. The inflammation may cause the formation of a membrane with a total posterior synechia.

Ciliary Body: There is a massive inflammation of the entire ciliary body including the stroma, muscularis and epithelial layers. The stroma may be destroyed by necrosis. The muscularis and stroma of the ciliar body may be separated by a massive edema exudate,[43] and the vessels may be engorged. Polymorphonuclear leukocytes and chronic inflammatory cells fill this fluid. A beginning cyclitic membrane extending across the eye[163] and a marked patchy thickening of the ciliary body are observed.[174]

Choroid: The choroid shows a diffuse and fairly intense inflammation.[43, 163] It is thickened,[163, 174] with diffuse infiltration of lymphocytes which affects all vessel layers and extends somewhat into the ora serrata. The pigmented epithelium is also affected with degeneration.[69, 163] There may be detachment of the choroid.[43]

Retina: The retina is detached[43, 44, 69, 163, 174] and is almost completely inflammed, degenerated and necrotic as a result of the hemorrhage.[43, 44, 69, 163, 174] There are phagocytic cells containing blood pigment on the inner surface of the retina and in the optic nerve head.

Optic Nerve: The optic nerve shows complete atrophy[163] and there may be perivascular infiltration of the optic nerve.[44]

Vitreous: The vitreous is filled with hemorrhage and shows extensive inflammation. It may also show liquefaction and secondary fibrosis from the cyclitis membrane.

Lens: There is a cataract[14, 163] and the epithelium is proliferated on the posterior surface.

Central Nervous System Involvement: There are widely spread focal infiltrations in the brain[17, 141] and spinal cord, with large areas of ramollition formation, localized primarily in the pedunculus and medulla oblongata, but also in the thoracic portion of the spinal cord. Far beyond the focal areas there is perivascular cellular infiltration.[17, 141] In the focal centers, where part of the axis-cylinders are missing, there are granulofatty cells, a number of which are found also in the perivascular infiltrations. There are only slight signs of meningitis.[166]

Skin Biopsies: Several biopsies from skin lesions showed that there is a perivascular infiltration[69, 141, 174] with inflammation and thrombosis of veins.[69, 99, 174] The venules are involved in an inflammatory reaction to a greater extent than the arterioles.[69]

Sections from a fully developed scrotal ulcer disclosed far more severe inflammatory changes in the upper corium. There is an influx of considerable numbers of polymorphonuclear leucocytes with superficial deposition of a small amount of fibrino-purulent exudate. On the periphery of the lesion and in the deeper portions of the corium the inflammatory cellular infiltrate decreases in intensity but vascular lesions remain prominent.

Joint Involvement: Microscopic examination of the synovial membrane revealed edema, hyperemia and superficial, perivascular collections of inflammatory cells, chiefly lymphocytes, histiocytes and fibroblastic proliferation.[69]

Sections from the sedimented articular exudate shows masses of segmented leukocytes and mononuclear cells.[69]

Miscellaneous: In one case, by macroscopic examination, there was parenchymal hemorrhage in the lung.[166] In another case, there was aneurysm of pulmonary arteries.[177]

ETIOLOGY

The etiology of this disease was obscure until 1952 and there were several hypotheses. In my opinion three hypotheses deserve special consideration, and the evidence in favor of each will be briefly discussed, together with possible objections.

1. Allergy: Weve[182] believed that the manifestations in the eye, skin and mucosa were the result of an allergic phenomenon due to the staphlococcic infection. The findings of staphylococci in blood cultures from certain cases[1, 2] induced a number of workers to accept Weve's suggestion.

The frequent occurrence of thrombophlebitis is considered by some authors as an evidence of allergy,[96] and some others considered these thromboses as a basic factor, and they thought that this disease is mainly a vascular disorder.

The symptoms of Behçet's recurrent disease are strikingly recurrent, and in this respect they resemble those of certain allergic disorders. However, at the onset, it is not rare for only one eye to be involved while the other is not. If it is an allergic reaction they should be involved bilaterally from the beginning. Koch[110] suggested an allergic etiology, yet in his own case there was no important allergen. Anti-allergic treatment has failed in this disease.

2. Vitamin Deficiency: Vitamin deficiency, B complex, was considered as an etiologic factor by Schultheiss-Linder.[158] Occasionally low vitamin levels were found[141] but these findings were secondary to poor nutrition due to mouth ulcers. Vitamin therapy has no effect on the essential course of this disease.

3. Infection: The theory of bacterial infection seems most unlikely at the present time. Prior to Behçet's investigations, however, most workers incriminated tuberculosis,[179] syphilis or focal infections.

Viral etiology was suggested by Behçet on the basis of the presence of inclusion bodies in the histopathologic studies.

Alm and Öberg[6] were able to produce conjunctivitis, optic neuritis, retinitis, uveitis with hypopyon, and meningo-encephalitis in rabbits through four generations by spinal fluid inoculation obtained from patients suffering from Behçet's recurrent disease, with or without involvement of central nervous system.

Sezer of Istanbul[162, 163] was able to isolate the virus of this disease and produced experimental disease in animals by using the exudate collected from the retina and from the vitreous body. According to Sezer, the pathologic agent of this disease apparently resides in the posterior segment of the eyes, and is probably absent in the mouth, genital ulcers, and hypopyon. The virus readily traverses a double padded Sietz filter and the size of the particle is about 100 m. micron.

Cultivation: The virus grows well on the chorioallantoic membrane of a developing chick embryo and produces white circular plaques. After being adapted to the chorioallantoic membrane, the virus generalizes and causes the death of the embryo in three to five days. As the strain has passed serially several times, its virulence for the embryo is greatly increased while the virulence for mice is stationary. Following the inoculation in the allontoic cavity, the virus proliferates in the endodermal lining cells of the sac and appears in the fluid, which is usually collected after 24 to 48 hours.

Mice can be infected through the spinal canal, intraperitoneally, or subcutaneously and they may develop encephalitis. Rabbits are inoculated intraocularly by the virus isolated from the blood, and they develop choroidoretinitis, iritis and cloudiness of vitreum. If they were subjected to cortisone treatment before and after experimental inoculation, uveitis with hypopyon developed with the characteristic manifestations. In rare instances the virus travels to the brain and may induce a fatal encephalitis. Guinea pigs which are inoculated intraperitoneally develop a fatal hemorrhagic lobar pneumonia.[163]

The frequency of brain stem disorder, the change in the substantia nigra and the development of Parkinsonian features in some cases, are all in favor of a neurotropic virus with an affinity for the gray matter of the midbrain and basal ganglia.[132]

DIAGNOSIS

Behçet's recurrent disease can be diagnosed by isolation of the virus in the absence of cardinal manifestations. It is important to emphasize the fact that the most important clinical character of this disease is recurrence. In the beginning, triad symptom complex was considered to be essential to establish the diagnosis but not any more. In cases of recurrent, aphthous stomatitis, aphthous ulcers of genitalia, uveitis, meningo-encephalitis, thrombophlebitis, arthritis and erythema nodosum, even if these manifestations are alone, Behçet's recurrent disease must be considered. It is not true that one must wait until the triple nature of this disease develops to make the diagnosis.

Differential Diagnosis: It must be clearly appreciated that the individual lesions per se are in no way distinctive unless the virus of this disease is isolated. The most important differential diagnostic characteristic of this disease is recurrence.

Fiessinger-Leroy-Reiter's syndrome and erythema multiforme are similar to this disease. Because of the importance of the differential diagnosis between these entities, this subject will be discussed in a separate paper to be published at a later date.

If skin, mucous membrane, mouth lesions and constitutional symptoms are severe and involvement of the posterior segment of the eye is not present, then erythema multiforme should be ruled out.

If the patient is a young male and urethritis is present and the arthritis is severe, then Fiessinger-Leroy-Rieter's syndrome should be carefully excluded.

No differential diagnosis can be made between the conditions known as ulcer vulvae acutum, periadenitis mucosa necrotica recurrence and aphtosis because it seems to me that they are identical with genital and oral lesions of Behçet's recurrent disease.

Secondary syphilis might be confused on account of fever, rash and keratoconjunctivitis. Genital and mouth lesions also occur in both diseases but differ in their appearance, time relation to the other symptoms, and bacteriology. The mucous patch in syphilis is painless, and has a moist surface. The lesions in the Behçet's recurrent disease are not serpinginous like luetic lesions, but are more discrete and punched out in configuration. In secondary skin eruptions, glandular enlargement and a positive response to the serologic test would accompany syphilitic ulceration of the mouth and genitalia. A dark-field examination of the ulcer's surface may reveal the true nature of the lesion, because the mucous patch is highly infectious and abounds with T. pallida. Furthermore, Behçet's recurrent disease does not respond to treatment.

In some respects, the lesions of herpes labialis and the mouth lesions of this disease resemble each other. The patient with recurrent herpes simplex always have a high titer of virus neutralizing antibodies in the serum, whereas several patients with Behçet's recurrent disease showed no such antibodies.

In herpetic gingivitis and stomatitis the mucosa is congested and inflamed. The interdental papillae are not especially attacked, but all the gingiva is red and swollen. A pseudomembrane may be formed in localized areas. If seen early enough, minute vesicles may be found. Later small ulcers resembling the aphthous lesions are present.

Difficulty may occur in differentiating the aphthous from traumatic ulcers, especially when the latter is caused by toothbrush trauma. Toothbrush abrasions are often quite painful and are frequently the same size as the aphthous lesions. The history of recurrence distinguishes the aphthous ulcers from the traumatic type.

The benign mucous membrane pemphigus produces chronic recurrent ulceration and scarring of the conjunctivae, mouth and genitalia. Though it is a distinct entity affecting the elderly, it should, however, be mentioned in differential diagnosis.

When central nervous system involvement is present, then differential diagnosis should be made between the other types of encephalitis, meningitis and multiple sclerosis.

Undulant fever is sometimes the cause of chronic uveitis and occasionally gives rise to encephalomeningitis.

Benign lymphogranulomatosis may occasionally be associated with both uveitis and encephalomeningitis.

In diabetes mellitus, skin lesions, vulvitis, mouth ulcers and retinitis may be present. The skin disturbances in diabetes mellitus are not related to the glycosuria or hyperglycemia but are due to an increased vulnerability of the skin as a result of a deficiency in the component of the vitamin B complex, especially nicotinic acid. A complete cure with nicotinic acid may take from a few days to several months. This treatment has no effect on the course of Behçet's recurrent disease.

In cases of severe recurrent hemoptysis, in an otherwise healthy patient, except for x-ray evidence of diaphragmatic pleurisy, vascular changes and enlarged hilus with perihilar infiltrations, Behçet's recurrent disease should be considered in differential diagnosis.

PROGNOSIS

The prognosis is tragic as far as eyes are concerned. Complete blindness almost always occurs while the oral and genital lesions generally heal without leaving any trace. The course of this disease is chronic. Recurrences are the general rule. Cases recurring intermittently over 25 years have been recorded. After the eyes become blind, recurrences may stop. Thus far, no complete healing has been reported, in spite of the fact that most of the cases have been under observation for many years.

Death has been reported in 4.5 per cent of patients[17, 70, 82, 166, 177] and it is safely said that the cause of death is involvement of the nervous system; however, in two cases no specific causes were given. If a patient recovers from encephalomeningomyelitis, then Parkinson's syndrome or other sequelae may develop.

TREATMENT

Practically all available types of medication have been tried, but because the essential characteristic of this disease is exacerbations and remissions, evaluation has been difficult. In a few cases good response has been reported to treatment, but today it is unfortunately true that there is no treatment for the unfortunate victims of this disease.

Antibiotics, antihistaminics, gold salts, arsenicals, fever therapy, injection of foreign protein and vitamins have no value in the treatment of this disease.

According to Sezer, treatment with ACTH and cortisone is contraindicated because it increases the clinical manifestations and decreases the titer of antibodies in the blood. The majority of other authors reported poor results with adrenal cortical hormones.

Enucleation of one eye does not change the poor prognosis of the other eye.

SUMMARY

1. The different features of the Behçet's recurrent disease are reviewed.

2. The full name Behçet's recurrent disease is proposed for the disease generally known as Behçet's triple symptom complex. Since the most important characteristic of this disease is recur-

rences, it is my opinion that this word "recurrence" should be linked with the name of Behçet. It might then be called "Behçet's recurrent disease."

3. The etiology of this disease is a virus.
4. The diagnosis of this disease should be made in the absence of all three symptoms of the classical triad if there are other symptoms and recurrences as described.
5. The three main systems involved are listed in order of severity as follows: (a) eye, (b) nervous system, and (c) vascular system.
6. Time of onset of the three systems involvement is as follows: (a) mouth, (b) genital organ, and (c) eye.
7. Recurrences occur in all patients.
8. The prognosis for life is bad if central nervous system involvement occurs.
9. Complete blindness almost always occurs.
10. There is no known treatment.
11. This disease is not limited to any one geographic location.
12. This disease occurs most frequently in males with a peak incidence between the ages 20 and 30 years. However, it is not rare among females.
13. If skin, mucous membrane, mouth lesions, and constitutional symptoms are severe, and involvement of the posterior segment of the eye is not present, then erythema multiforme should be ruled out.
14. If the patient is a young male and urethritis is present and the arthritis is severe, then Fiessinger-Leroy-Reiter's syndrome should be carefully excluded.

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Acknowledgment: I wish to express my gratitude to Dr. R. O. Muether and Dr. A. Speno for their suggestions, to Dr. E. Leonhardt, Dr. E. Gonzales, Dr. F. Celis, Dr. F. Sciarrone and Dr. W. Koenig for translation of foreign articles other than Turkish and French.

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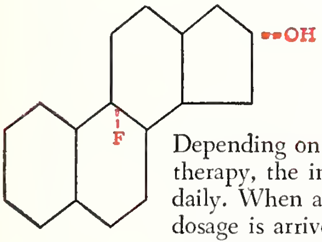

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Special Article

Changes in the Medicare Program

In view of the extensive changes in the Medicare program, it seemed wise to print a major portion of *Medicare Supplementary Bulletin No. 6* that was mailed by MSMA to all Missouri physicians September 26. These changes have been in effect since October 1 due to a reduction in the federal funds available.

They basically concern the elimination of certain types of care, and the eligibility of dependents to receive civilian care under the program.

CARE NO LONGER PAYABLE UNDER MEDICARE

The following care and services by civilian physicians, if commenced on or after October 1, 1958, will not be payable by the government under the Medicare program:

1. Treatment of fractures, dislocations, lacerations and other wounds on an out-patient basis.

(Outpatient treatment of injuries will be deemed to have commenced prior to October 1 and will be payable if the patient contacted the source of care prior to midnight, September 30, and a statement to that effect is made on the Statement of Services form.)

2. Termination visits—the payment previously made to a referring physician who terminated his care prior to or upon hospitalization of the patient.

(Termination visits are still payable in cases where the patient is admitted to the hospital for authorized care prior to midnight, September 30, and the physician's Statement of Services shows this prior admission date.)

3. Outpatient pre- and post-surgical tests and procedures.

(Such tests and procedures are still payable in cases where the patient is admitted to the hospital for authorized care prior to midnight, September 30, and the physician's Statement of Services shows this prior admission date.)

4. Neonatal visits—formerly authorized on an outpatient basis not to exceed two visits during the first 60 days.

(The two neonatal visits will still be payable under the program if the birth occurs prior to midnight, September 30, and the physician's Statement of Services contains a statement to that effect.)

(In the case of home or office deliveries, necessary infant care will still be authorized for payment on an outpatient basis during the first 10 days following delivery, and in-hospital care of the newborn is still allowable, as part of complete maternity care.)

5. Treatment of acute emotional disorders, as such.

(Care of an acute emotional disorder is, however, still authorized, if required, during a period of hospitalization for a condition that does qualify for authorized care.)

6. Elective surgery.

Elective surgery is described as "medical or surgical care that is desired or requested by the patient which in the opinion of the cognizant medical authority can be planned, subsequently scheduled and effectively treated at a later date without detriment to the patient, e.g., diagnostic surveys, cosmetic surgery, reconstructive surgery, tonsillectomies, uncomplicated hernias and interval appendectomies."

Such elective surgery, which, from a practical viewpoint, permits the patient and the physician to plan for the surgery required is not authorized for payment under the program, unless, due to unusual circumstances, it would qualify as a surgical emergency. Additional examples of elective surgery would include dilation and curettage, hysterectomy (routine), ligation of Fallopian tube, heart surgery, submucous resection, rhinoplasty, and reconstructive orthopedic and plastic procedures.

CARE AUTHORIZED FOR PAYMENT

I. Surgical.

A. *Surgical emergencies requiring hospitalization.*—Bona fide surgical emergencies, which cannot be handled on an outpatient basis, will continue to be honored for payment under the program.

Such patients will necessarily be acutely ill and in need of immediate hospitalization and treatment. Examples include perforated duodenal ulcer, hemorrhage with shock, bowel obstruction and similar recognized emergencies.

B. *Acute surgical conditions.*—Acute surgical conditions are those which, while requiring prompt treatment in a hospital, are not considered emergencies under the program. Under such circumstances the patient is acutely ill and must receive treatment without delay as time will not permit the patient to anticipate or plan for the care required. The procedure required for the treatment will of necessity be carried out at the earliest practicable time compatible with sound surgical judgment and the proper preparation of the patient for surgery. The requirement here is that the ill patient be in clinical need of hospitalization without delay with a view to surgical correction of the basic condition. Examples include acute appendicitis, empyema of the gall bladder, twisted ovarian cyst, strangulated hernia, pelvic abscess, and renal or ureteral calculi with colic. Suspected or proven malignancy, requiring hospitalization, will be payable only if the case qualifies as an acute surgical condition or a surgical emergency.

In acute surgical conditions, payment under Medicare will be authorized when the charge physician indicates that an acute requirement existed.

C. *Injuries requiring hospitalization.*—Injuries of such clinical severity as to require hospitalization will continue to be payable under the program. Hospitalization is authorized, however, only for treatment of the acute phase. Readmission for treatment of chronic stages or sequelae of injury would not be payable unless an acute medical or surgical requirement is shown, such as osteomyelitis with acute exacerbation.

II. *Medical.*—The provisions of the program pertaining to the treatment of acute medical conditions remain unchanged.

III. *Dental.*—The provisions of the program pertaining to dental care remain unchanged, with the provision that adjunctive dental care is now payable only when it is an integral and necessary part of the surgical or medical care currently authorized under the program. It must be clearly shown that the dental care furnished was required for the proper treatment of the basic medical or surgical condition for which the patient was hospitalized.

ELIGIBILITY FOR CIVILIAN CARE

I. Dependents Residing Apart from Sponsors.

A. Dependents who are residing apart from their sponsoring serviceman will continue to be allowed to select either civilian medical sources or uniformed services medical facilities for care authorized under the program.

B. If the dependent signing the Statement of Services form in Item 14 designates "Residing Apart from Sponsor—Yes" in Item 4, this will be sufficient evidence, and the authorized care rendered will be payable by the government, provided that the physician giving the care has no actual knowledge to the contrary.

II. Dependents Residing with Sponsors.

A. Dependents residing with their sponsors will be required to use uniformed services medical facilities if these are available and deemed adequate by the medical commander.

If uniformed services medical facilities are not available, a permit will be furnished to the dependent by the appropriate commander which will serve as authorization for care from civilian sources at government expense, provided the care given is authorized under the program.

B. If the Statement of Services form shows "Residing Apart from Sponsor—No," a permit is required if payment is to be made by the government for authorized care.

A copy of the permit must be attached to the original copy of the attending physician's Statement of Services and to the hospital's claim form, except in the following circumstances:

Exceptions.

1. *Acute emergencies.*—When a dependent who resides with the sponsor is hospitalized for care authorized under the program in a bona fide acute emergency, no permit is required. The attending physician, however, must state on the Statement of Services form, "This case was a bona fide acute emergency."

Examples of bona fide acute emergencies include serious injury following an accident or illness of sudden onset requiring immediate treatment to preserve life or prevent undue suffering.

2. *Traveling.*—When a dependent who resides with the sponsor is away from the area of the sponsor's household on a trip, care authorized under the program may be obtained from civilian sources without a permit. The dependent signing the Statement of Services form in such cases, however, must state "On Trip" in Item 3 or 4 of the form. This will be sufficient evidence for government payment, provided the physician giving the care has no actual knowledge to the contrary.

3. *Certain maternity cases.*—A maternity case (when the wife is residing with the sponsor) which was under the care of a civilian physician on or before October 1, 1958, may be continued by that physician, *provided* that the patient has reached the second trimester of pregnancy on or before that date.

In such cases, a statement is required on the attending physician's Statement of Services, and on the hospital's claim form, to the effect that the patient was under the physician's care on or before October 1, 1958, and that her pregnancy had reached the second trimester on or before that date.

No permit will be required in such cases.

4. *Hospital admissions prior to October 1.*—Dependents admitted to a hospital for authorized care under the program prior to midnight, September 30, 1958, whose care resulting from this admission extends beyond September 30, will not be required to provide a permit for that hospital admission or for the care by a civilian physician pertaining to that hospital admission.

In such cases, the date of admission shown on the hospital's claim form must be prior to October 1, 1958, and the physicians must also show the hospital admission date prior to October 1 on his Statement of Services.

5. *Physicians other than the attending physician.*—When a Statement of Services is submitted by a physician other than the attending physician for care authorized under the program—for example, by an anesthesiologist, radiologist, pathologist, assistant surgeon, consultant, etc.—no permit need be attached.

In such cases, however, the dependent signing the Statement of Services form must state on the form that a permit was furnished to the attending physician (identified by name) and/or to the hospital (identified by name).

President's Page

While our Association is not a political action group, I still feel compelled to urge that each physician go to the polls Tuesday the 4th and vote.

Which political ticket you vote is not important!

The important thing is to vote and have some voice in selecting the people who are going to represent you at all levels of government.

Don't be afraid to tell your patients of your feelings about various candidates. If you don't have any feelings about them, that is bad. That is why medicine is losing the legislative battle today. Other areas of our economy not only have feelings, they have active candidates they are pushing in the political arena. Just look at labor for example.

But we physicians have gotten too busy to do this. It is not our fault, actually. The practice of medicine has gotten so complex and most of us are so busy that we don't take the time to engage in political activity.

Thirty or 50 years ago it wasn't that way. Then physicians served their communities not only as health protectors but civic leaders. Today we seldom find a doctor doubling as mayor or head of a town council.

The number of physicians in the legislative halls in Congress also is very small. In fact, they are very rare; so rare, that we probably ask ourselves how he can afford the time to be there.

Yet that is what we need. More doctors in political offices.

I realize that times have changed so the best we can do is to try to protect the welfare of our patients and our profession by electing the best qualified person running for office.

Fortunately our support at the state and national levels comes from friends in both parties. The only trouble is we frequently seem to be a little shy of friends when the going gets rough and, as in the last session of Congress, we now seem to count ourselves fortunate if we can just maintain the status quo.

So, when that all important voting day comes, go to the polls and urge as many people as you can to do the same.

EDITORIALS

Health Field Lures Labor Unions

The third party element continues to grow in influence in the practice of medicine as labor expands its welfare programs in the health institute field.

One of the latest to enter the field is the St. Louis meatcutters union with a "one-stop" medical center as it was described by reporter Ted Schafers of the *St. Louis Globe-Democrat.* The new structure in St. Louis, built at a cost of 1 million dollars, is expected to have an annual operating budget of $300,000.

Funds to provide care for some 2,200 meatcutters and their families come through fringe benefits negotiated by the union. As Schafers said:

"Such protection does not come cheap. It only seems so to the workers because employers in most instances are paying the bills through union negotiated health and welfare contracts."

BENEFITS GO BOTH WAYS

Preventive medicine and how it will cut down on absenteeism is stressed by the union as one of the benefits of the new clinic. Actually, the program also gives the union an even stronger hold over the union members because it takes over another area of his personal life, his health.

"We are going to make it part of our contract that every meatcutter must take a complete physical check-up at least once a year," the union president said. "We are going to concentrate first on the medical phases; the dental work will come later."

It, of course, is impossible to argue with the wisdom of a physical examination each year. But for a union official to talk of imposing it on his constituents is another thing.

Automatically, the free choice of whether a butcher wants an annual physical examination or not is destroyed. Not to mention quite a bit of the element of free choice of physician, if the butcher wishes to go outside the panel of physicians offered to him by the clinic.

And why would the meatcutter be told to get a physical examination each year?

DEEPER THAN MERE HEALTH

Ostensibly, because it is good for his health. But looking at it from another side, this just helps round out the power of the union president. It gives the union yet another control over its constituents.

It also gives the union more bargaining power with the employers who are forced to pick up the check for the health clinic. To the meatcutter's boss and the consuming public, the union chieftain can point out how the public is protected by having healthier meatcutters.

But what of the individual butcher? He has just signed away another freedom in return for what he feels is economic betterment. By the time he adds up his dependence on the union, he virtually is living in a segregated socialistic society run by the union leaders. Once a complete retirement plan is worked out for him, he will have few decisions he has to make.

The growth of labor health centers is part of a pattern across the nation. The field of fringe benefits offers a wealth of rich sounding phrases and services that help weld union cohesion. Health and welfare benefits normally are administered by the union officials and if a worker does not choose to avail himself of them, it is only the worker's loss.

HARD NOT TO GO ALONG

However, the worker usually sees that health benefits actually are part of his salary and he can ill afford to continue going to his old family doctor. It has a special appeal to the worker with a large family. Mother can take all the kids down to the union clinic for a check-up without paying out a dime. This doubly appeals to her, if the doctor there treats her nice and appears to be competent.

The success and future of the labor health institutes depend upon these factors. If they satisfy the workers and their families, they doubtless will continue to grow.

Two other labor groups in the St. Louis area already have indicated a keen interest in such programs, according to the *Globe-Democrat.* They are the carpenters' organization with 10,000 members and the machinists with 15,000.

To give some indication of the scope of the health and welfare field, it has been estimated by the Department of Labor that about 8 billion dollars is invested annually in such programs.

UMWA A THIRD PARTY GIANT

One of the early leaders in the field was the United Mine Workers Union. In the fiscal year ending June 30, the UMWA is reported to have spent more than 58 million dollars for hospital and medical care.

There was a major controversy in the last AMA House of Delegates over the relations between medicine and the UMWA Welfare and Retirement Fund. As it came out, the House called for an immediate public relations campaign to educate the public to the restrictions to free choice of

(Continued on page 1246)

Musings of the Field Secretary

"Back to School" was the theme of the Fall Board Meeting of the Woman's Auxiliary to the Missouri State Medical Association held at the Roubidoux Hotel, St Joseph, Tuesday and Wednesday, September 16, 17. Some eighty doctors' wives from all over the state attended. They included officers, district directors, committee chairmen of the Auxiliary and many representatives of county society auxiliaries. Members of the Buchanan Auxiliary were busy throughout the session seeing to the numerous details that concern the success of any such meeting. Just to be sure that their wives did not "hog all the glory" the Buchanan County Medical Society was host at a social hour on Tuesday night preceding the special dinner and entertainment. A good number of the members of the Society were on hand to see that all of those in attendance from "out of town" were aware that the Buchanan County Medical Society values the work and potential of the Auxiliary.

Mrs. Bauman presided at the meeting.

A banquet was a part of the session.

Following the social hour and dinner, top entertainment was presented by members of the Auxiliary, which included: unique readings in character, musical and non-musical, by Mrs. Jordan Kelling of Waverly; a skit on home safety, by members of St. Louis and St. Louis County Auxiliaries, moderated by Mrs. Charles Shepherd of Clayton; a musical skit by members of the Grand River Auxiliary with Mrs. Ralph Bohnsack of Brookfield, pianist and director; excellent reading having to do with that favorite woman's subject "clothes," given by Mrs. Stanley Peterson of Springfield, and a top performance of a humorous take-off on a local auxiliary meeting by the Buchanan Auxiliary with Mrs. McDaniel of St. Joseph carrying the lead. Mrs. Henry C. Bauman, Maryville, President of the State Auxiliary, presided at the evening session and gave further evidence of her versatility by filling-in on the dance routine given by the Grand River group.

The real business of the meeting was transacted on Tuesday afternoon and Wednesday morning. On Tuesday the ladies were divided into three groups at which the same questions and projects were discussed. Certain resource people were present to move from group to group and participate in the discussions. This was truly a workshop procedure. Following these group discussions a general meeting was held with summary statements given by the resource people. The resource people included: Mrs. Marian Rauschenback, Paterson, New Jersey, Third Vice-President of the Woman's Auxiliary to the AMA, who was the conference leader with community service as her point of emphasis; Mrs. Esther Flynn, Clarinda, Iowa, a

The meeting was well attended.

Among skits presented was one by the Grand River Auxiliary.

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*Finnerty, F. A., Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957.

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Director of the AMA Auxiliary and concerned with programs; Mrs. Charles Shepherd, Clayton, past president of the Missouri State Auxiliary, concerned with home safety; Mrs. Frederick E. Wade, Kansas City, former chairman of the A.M.E.F. Committee and President-Elect, Woman's Auxiliary to the Jackson County Medical Society, who discussed ideas of promoting A.M.E.F.; Mr. Bill Logan, Executive Assistant, Missouri State Medical Association, who discussed legislation, and yours truly who served as a liaison officer and organizational problems discusser. Many of the County Auxiliaries used display tables to present ideas and projects they are using, or expect to use, in their activities.

Wednesday morning was devoted exclusively to the regular business meeting calling for committee reports and similar routine.

Your correspondent gained both information and inspiration from this conference. The ladies taking part in the meeting were most serious about their projects and programs. They gave every impression of a deep appreciation of the major problems facing medicine today and a real "honest-to-goodness-desire" to do their part in helping the medical profession to solve them.

The 1958 Public Relations Institute of the AMA was held at the Drake Hotel in Chicago, August 27-28. Some 300 persons, including physicians, executive and public relations personnel of state and county medical societies and of the AMA attended the session. At these institutes some of the knotty problems of the socioeconomic aspects of medicine are explored and deplored with many worth while ideas and programs for solutions offered. The idea of good public relations being a by-product of good public service permeated this year's conference.

An interesting panel discussion was presented the first morning entitled "What Do You Know—About the Social and Economic Changes Taking Place in American Life?" Members of the panel included a representative of the National Health Insurance Council, a representative of the AFL-CIO, a representative in the U. S. House of Representatives—the Honorable Thomas B. Curtis, 2nd Congressional District of Missouri, Webster Groves—and an industrialist. The changes discussed by this panel were tied in to show their effects upon the practice of medicine and other health problems.

In the afternoon another panel discussed communications technics under the title of "How Do You Say It?" Following this was another panel wrestling with the subject "Who Do You Know?" The idea here was to point up the value of knowing and having good contacts with those who are in responsible positions and can and do exert influence on various groups of people. This refers to local, state and national levels.

The evening session produced the high-light of the entire two-day conference. This was a reception to which all came for an informal get-together and relaxation period following the rigors of the day. The entertainment at the reception broke all records for "bringing down the house." The Musical Medical Hit Parade of the Greene County Medical Society of Missouri did it again. The six troubadours "from old Greene County," namely, Drs. James Brown, Don Gose, Charles Lockhart, Harold Lurie, Francis H'Doubler, Jr., and Fred Coller took the audience by storm. The enthusiastic reception of this unique program was really thrilling for those of us from Missouri to see. Judging from the requests and propositions offered for this program to be given before state medical association annual meetings over the country, some good doctors may be missing around Springfield before long.

The Thursday morning program, August 28, started off with a panel on "What Have You Got to Say?" which offered a résumé of new public relations projects being successfully carried on in various local and state medical societies. Following this came a panel discussion on "Food Faddism" (a review of food faddism educational programs). Climaxing this was the premiere showing of the film, "The Medicine Man," which is a new 27-minute motion picture on food faddism produced by the AMA for state and county medical society use. It is intended for showings on television and before women's clubs and other lay groups.

Following lunch a report on the national association of science writers' survey was given. This survey had to do with Science, The News, and The Public—Who Gets What Science News, Where They Get It, and What They Think About It.

The final session of the Institute on Thursday afternoon encompassed informal discussion groups on Television, Legislation, County Bulletins, and Food Faddism Educational Program. During this session "Helping Hands for Julie" was shown. This is a new 28-minute motion picture to aid in recruiting auxiliary medical personnel which was produced by the AMA, the American Hospital Association, and E. R. Squibb and Sons for state and county society use.

Representatives from Missouri who attended the Institute were: Joseph B. Kendis, M.D., Medical Editor, *St. Louis County Medical Society Bulletin;* James E. McConchie, M.D., Chairman, Public Policy and Relations Committee, Jackson County Medical Society; Mr. W. H. Bartleson, Executive Secretary, and Mr. Don Irish, Executive Assistant, Jackson County Medical Society; Mr. Hollister Smith, Executive Secretary, St. Louis Medical Society; Miss Helen Penn, Assistant Editor, MISSOURI MEDICINE, and Yours Truly.

NEW MEMBERS

Augustine, Robert W., M.D., 902 Edmond St., St. Joseph. Buchanan County Medical Society.

Baggot, Michael G., M.D., 2415 N. Kingshighway Blvd., St. Louis. St. Louis Medical Society.

Burmeister, R. William, M.D., 10 Mappen Drive, St. Louis 23. St. Louis Medical Society.

Colman, Carl H., M.D., 138 N. Meramec, St. Louis 5. St. Louis Medical Society.

Criscione, James R., M.D., 501 Missouri Theatre Bldg., St. Louis 3. St. Louis Medical Society.

Goldsich, Edward, M.D., Plaza Theatre Bldg., Kansas City. Jackson County Medical Society.

Gorham, Arwin E., M.D., 901 Beaumont Bldg., St. Louis. St. Louis Medical Society.

Haley, Jack A., M.D., Professional Bldg., Kansas City. Jackson County Medical Society.

Hasson, Jack, M.D., 216 S. Kingshighway Blvd., St. Louis. St. Louis Medical Society.

Hirsch, Joe E., M.D., Professional Bldg., Kansas City. Jackson County Medical Society.

Newton, William T., M.D., 600 S. Kingshighway Blvd., St. Louis. St. Louis Medical Society.

Sawyer, James, M.D., 111 Church St., St. Louis 21. St. Louis Medical Society.

Williams, Roland D., M.D., 305 W. 43rd St., Kansas City. Jackson County Medical Society.

Ziegler, Allen M., M.D., Plaza Broadway Bldg., Kansas City. Jackson County Medical Society.

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News

In observance of Firmin Desloge Hospital's 25th anniversary, clinical departments of St. Louis University School of Medicine are sponsoring a special series of fall lectures which began on September 8 and will continue through November.

Gretchen Collins, M.D., Macon, has been named director of the health program for the Macon public schools for the 1958-59 year.

Formal opening of the $250,000 home of the Southern Medical Association was held Sunday, September 7, in Birmingham, Alabama.

L. P. Gay, M.D., Jefferson City, presented a paper entitled "Essential Hypertension Controlled by Non-Reaginic Food Management" at the International College of Allergists in Paris.

An Irvin M. Birenboim Memorial Hearing center is to be established at Menorah Medical center in honor of Dr. Birenboim, formerly of Kansas City, who died recently of cancer when only 38 years old.

Arthur W. Neilson, M.D., St. Louis, president of the St. Louis Medical Society, has been appointed to membership on the medical advisory committee of the St. Louis-St. Louis County Chapter of The National Foundation.

Louis T. Byars, M.D., St. Louis, was one of the eleven guest speakers at the twenty-sixth annual assembly of the Omaha Mid-west Clinical society, Novebmer 3, 4, 5 and 6.

"Diet and Pregnancy" was the subject of a talk by **H. A. Ritter**, M.D., St. Louis, at a meeting of the St. Louis Dietetics Association.

Wendell G. Scott, M.D., St. Louis, has been approved for promotion to Rear Admiral in the Naval Reserve medical department, the Navy Department announced September 10 in Washington.

The U. S. Medical Center in Springfield observed its twenty-fifth anniversary the week of September 15.

Lloyd S. Rolufs, M.D., Kirkwood, was elected president of the medical staff of St. Joseph's Hospital in Kirkwood at a recent meeting of the staff. His term is for one year. Other officers elected were: Dr. **Karl L. Keffler**, St. Louis, president-elect, and Dr. **Harry C. Sammons**, Kirkwood, secretary-treasurer.

Goronowy O. Broun, M.D., St. Louis, professor of internal medicine at St. Louis University School of Medicine, has received a new $18,501 grant for research of encephalitis viruses. The grant is from the National Institute of Neurological Diseases and Blindness of the National Institutes of Health.

"The Function of the Practical Nurse in Industry" was the subject of a talk by **Richard A. Sutter**, M.D., St. Louis, at a dinner meeting of the St. Louis Chapter of the Practical Nurses Association of Missouri.

Leopold Hofstatter, M.D., St. Louis, assistant superintendent of St. Louis State Hospital, spoke on "The Vital Role of the Volunteer in a Modern Psychiatric Hospital" to prospective members of the hospital's auxiliary.

Appointment of **M. L. Gentry**, M.D., Springfield, as health officer for the Springfield district was announced by **H. M. Hardwicke**, M.D., Jefferson City, acting director of the Missouri Division of Health.

The Osler Society of the St. Louis City Hospital will hold its Annual Clinical Meeting on November 13-14, 1958, at the Essex House and New York Hospital, New York. Members should notify the Secretary-Treasurer, Dr. Jack Barrow, 110 South Central, St. Louis 5, Missouri, indicating their desire to attend.

New president of the Burge Hospital medical staff is **M. W. Dietz**, M.D., Springfield, who succeeds **Joseph Siceluff**, M.D., Springfield. **E. H. Rainwater**, M.D., Springfield, is president-elect. Other officers elected were **Don Gose**, M.D., Springfield, secretary, and **Albert Simpson**, M.D., Springfield, treasurer. Dr. **Kenneth Knabb**, Springfield, and Dr. **Vernon Kolze**, Springfield, were chosen to the executive committee.

E. Lee Dorsett, M.D., St. Louis, attended the district meeting of the American College of Obstetrics and Gynecology at Jackson, Mississippi, September 11 to 14.

"Recent Advancements in the Treatment of Heart Diseases" was the subject of a talk by **Hugh E. Stephenson, Jr.**, M.D., Columbia, at a meeting of the Cosmopolitan Club of Columbia on September 18.

Lyle D. Litton, M.D., radiologist, Burge Hospital, Springfield, **Harvey S. Smith**, M.D., assistant pathologist, Burge Hospital, and **Roy W. Pearse**, M.D., Nevada, with **Rolla B. Wray**, M.D., Nevada, serving as moderator, composed a panel discussing the subject "Cancer Can Be Cured" at the annual meeting of the Vernon County Unit of the Cancer Society.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Buchanan County Medical Society

Sixty St. Joseph and Northwest Missouri doctors attended a meeting of the Buchanan County Medical Society Wednesday evening, September 3, in the Empire Room of the Robidoux Hotel, St. Joseph.

A social hour and dinner preceded the program which was presented by Hugh E. Stephenson, Jr., M.D., professor and chairman, Department of Surgery at the University of Missouri School of Medicine. Dr. Stephenson spoke on the subject "New Advances and Problems Associated With Cardiac Arrest and Resuscitation."

The following day, Thursday, September 4, Dr. Stephenson addressed the Optomist Club at Hotel Robidoux, where he discussed the Missouri University School of Medicine. Dr. Stephenson was procured for these talks by the program committee of the Buchanan County Medical Society with Caryl A. Potter, Jr., M.D., chairman.

William B. Rost, M.D., *Secretary*

Grand River Medical Society Meeting

The Grand River Medical Society met September 11, at the Strand Hotel, Chillicothe. About 50 were present including members, Auxiliary members, pharmaceutical representatives and guests. Among the guests were Mrs. Henry C. Bauman, Maryville, President of the State Auxiliary, Dr. and Mrs. J. M. Martt, Columbia, and Mr. and Mrs. Don Sipes, Trenton. Mr. Sipes is administrator of the Wright Memorial Hospital, Trenton. After the banquet the Auxiliary retired to their meeting.

The scientific program was presented by Dr. J. M. Martt, Department of Medicine, University of Missouri Medical School, Columbia, who discussed "The Early Detection and Treatment of Coronary Artery Disease," illustrated by slides. This was an interesting and scientific presentation of an important subject, followed by questions and answers.

At the business session, the proposal for changes in the Councilor Districts and possible changes in present delegate representation was presented to the Society by Dr. Dixon. A motion was made and approved for the president to appoint a committee to meet with Dr. Dixon, as chairman, and to review and further discuss the proposal. A report would be made at the October meeting. The president appointed Dr. C. G. Cullers and Dr. V. D. Vandiver as members of the committee.

The minutes of the last meeting were read and approved. There being no further business the Society adjourned.

E. A. Duffy, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

The regular monthly dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held in the Woodland Hospital, Moberly, Thursday night, September 11. Claude K. Leeper, M.D., associate professor of pathology, University of Missouri School of Medicine, was the main speaker of the evening. He discussed "The Value and Technic of the Cervical Smear in the Diagnosis of Cancer of the Cervix." Preceding his talk, Dr. Leeper showed the film "Time and Two Women."

An additional guest at the meeting was D. G. Hall, M.D., assistant professor of obstetrics and gynecology at the University of Missouri School of Medicine, who also participated in the discussion. Members of the Society present were Drs. Josephine Baker, W. Deward Chute, C. C. Cohrs, J. Will Fleming, Robert Hasson, L. E. Huber, A. P. Rowlette, C. C. Smith, Stanley R. Szymanski and Robert H Young, Moberly; C. C. Weber, Keytesville; James E. Campbell, D. E. Eggleston and Howard S. Miller, Macon; F. A. Barnett, Paris; Florian L. Harms and G. W. Hawkins, Salisbury; and G. G. Rice, Brunswick.

Robert H. Young, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Jefferson County Medical Society

The Jefferson County Medical Society met in regular session on Tuesday evening, June 17, at Jefferson Memorial Hospital. The program was presented by Dr. J. J. Foley from Dr. Furoulo's laboratory in Kansas City, who presented the program on histoplasmosis, illustrated by film. Several nurses from the County Health Department were also present at the meeting.

Following our usual refreshments the meeting adjourned.

Meeting of August 26

The Jefferson County Medical Society had its yearly meeting with the High School Athletic Coaches of the county on Tuesday, August 26, 1958, 8:30 p.m. at the Jefferson Memorial Hospital.

All the larger schools were represented by at least three coaches. The following doctors were present: Drs. Roger Allbee, J. J. Bredall, Arthur Sexauer, Thomas A. Donnell, J. L. Mayfield, K. B. McKinstry, C. E. Rice, J. F. Rutledge, and E. J. Senn.

A talk on "Diagnosis, Care and Prevention of Athletic Injuries" was given by Dr. Richard T. Odell, Associate Professor of Clinical Orthopedics of Washington University Medical School.

The meeting closed with a social hour and refreshments.

Meeting of September 23

The Jefferson County Medical Society had its regular meeting at the Jefferson Memorial Hospital the evening of September 23, 1958. The meeting was called to order at 8:30 p.m. by the president, Dr. Karl McKinstry. Other members present were: Drs. Rice, R. H. Donnell, Senn, Kozal, Allbee, Fallet, Sexauer and Rutledge.

The scientific program was a panel discussion on "Maternal Mortality in Missouri" by members of a

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...the superior decongestant and antihistaminic action of Triaminic

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...an expectorant to augment demulcent fluids

...the specific antipyretic and analgesic effect of well-tolerated APAP

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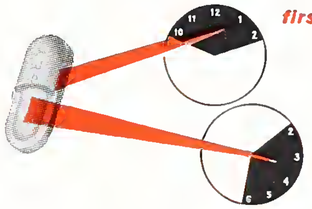

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committee investigating this subject for the Missouri State Medical Association. Doctors on the panel were A. C. Trueblood, Jr., J. Russell Vaughn, Norman K. Muschany, all of St. Louis. The program was exceptionally well received even by those not at present doing obstetrics. It is felt that the committee has done a lot of valuable work and deserves commendation.

John F. Rutledge, M.D., *Secretary*

FIFTH COUNCILOR DISTRICT

BYRON M. STUART, BOONVILLE, COUNCILOR

Audrain County Medical Society

The regular meeting of the Audrain County Medical Society was held on Monday evening at 7:00 p.m., September 15, at the Pilot Lounge, Air Park Motel, Mexico, Missouri.

The meeting was called to order by the President, Dr. Leonard L. Davis.

The guest speaker for the evening was Frank B. Long, Jr., M.D., St. Louis, Department of Obstetrics and Gynecology, Washington University School of Medicine. Dr. Long gave an interesting talk on "Toxemias of Pregnancy."

The following doctors were present for the meeting: Drs. Leonard L. Davis, Thomas Dwyer, Lawrence Epple, Ben Jolly, Harold D. Lankford, Harry F. O'Brien, Mexico, and L. L. LaChance, Centralia.

Harold D. Lankford, M.D., *Secretary*

SIXTH COUNCILOR DISTRICT

C. G. STAUFFACHER, SEDALIA, COUNCILOR

Joint Medical Societies Meeting

A joint dinner meeting of the Henry, Johnson, Pettis, Saline, Lafayette-Ray County Medical Societies and the doctors' wives was held Wednesday night, September 17, at McKay's Wings, Marshall Airport.

A social hour preceded the dinner and program. Some seventy-five doctors and their wives were in attendance. Following dinner the ladies held a separate meeting, and were privileged to have Mrs. Henry C. Bauman, Maryville, President of the Woman's Auxiliary to the Missouri State Medical Association, speak to them. Dr. and Mrs. Bauman drove to Marshall from St. Joseph following the close of the Auxiliary State Board meeting on Wednesday afternoon.

The scientific program of the evening was given by John A. Growdon, M.D., surgeon, Kansas City, Chairman of the Committee on Scientific and Postgraduate Work to the Missouri State Medical Association, and Herbert H. Virden, M.D., radiologists, Kansas City. The subject of their presentation was "The Management of Intestinal Obstruction." Considerable discussion and numerous questions from the audience followed the formal presentation which was good evidence of the interest in this subject and the effective way it was presented.

C. G. Stauffacher, M.D., *Councilor*

West Central Missouri Medical Society

Thirty people including doctors and their wives attended a dinner meeting of the West Central Missouri Medical Society in Harrisonville, Thursday evening, September 11.

The evening festivities began with a social hour followed by dinner and then the scientific program. Frank A. Mantz. Jr., M.D., and Robert Brown, M.D., both of Kansas City, presented the program. The subject they discussed was "Exfoliative Cytology." As a part of their discussion they showed the film "Time and Two Women," which fits in admirably with the discussion of this subject.

At the speakers table were seated Mrs. and Dr. Moody, Dr. and Mrs. Hartwell and Drs. Mantz and Brown.

The group remained at the table for the program.

B. O. Hartwell, M.D., Drexel, president of the Society, presided. Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association, was present and served as projectionist for the movie film and slides, as well as official photographer.

J. C. Moody, M.D., *Secretary*

EIGHTH COUNCILOR DISTRICT

W. W. TILLMAN, SPRINGFIELD, COUNCILOR

Jasper County Medical Society

A regular meeting of the Jasper County Medical Society was held on September 9, at Twin Hills Golf and Country Club, Joplin.

The meeting was called to order by the President, Dr. Robert E. Kirschman. Forty-four members were present.

During the dinner and prior to the business meeting Richard N. Craig spoke on the objects and purposes of

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the Jasper County Medical Society Group Retirement plan.

Minutes of the last regular meeting were read and approved. The minutes of the regular meeting of the Council of September 9 were read.

The president read to the Society the names of members who had been appointed to the various standing and special committees of the Society for the current year. He charged the Social Committee with planning ways and means of reciprocating the hospitality of the Ottawa County (Oklahoma) Medical Society in tendering a dinner and program to members of the Jasper County Medical Society.

Reports were made by the Chairmen of the Public Policy, Polio and Telephone Listing Committees.

Dr. R. R. Cohle announced that the cardiac diagnostic clinic for indigents was still functioning and invited members to use the services of the clinic.

Dr. Norman Barnett announced that investigation of the recent cerebral palsy fund campaign revealed that the efforts to raise money for cerebral palsy were made in good faith. Several members of the Society were of the opinion that the method used for solicitation of funds was in questionable taste.

Dr. Sandor Papp expressed satisfaction at hearing the minutes of the Council read at Society meetings and said he hoped the practice would continue. Dr. Papp then reported on the unsatisfactory state of the County Welfare and Indigent Program.

Among guests present and introduced was Dr. Walter Sewell, Past President of the Missouri State Medical Association.

The program chairman, Dr. Virgil Jeans, introduced the speaker of the evening, Dr. W. W. Tillman, Eighth District Councilor, who spoke on "Organizational Activities." A discussion period followed Dr. Tillman's address.

The President called attention to the United Fund Campaign and urged the members to support it.

There being no further business to come before the meeting, on motion duly made and carried, the meeting was adjourned.

John W. Koehler, M.D., *Secretary*

Ozarks Medical Society

The Ozarks Medical Society met September 9, at the Hereford House, Neosho, with thirty-nine members and Auxiliary members present.

Following the social hour and dinner Dr. Thomas, Tulsa, Oklahoma, gave an excellent presentation of the subject "Surgical Problems in the Newborn Infant."

At the business meeting which followed the scientific program, three applications were received for membership, namely, Robert C. Scanlon, M.D., Branson; Ray Gillispie, M.D., Branson; and Hartley F. Mars, M.D., Forsyth, the latter by transfer from Cook County Medical Society.

A. J. Graves, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

Mid-Missouri Medical Society

A dinner of the Mid-Missouri Medical Society was held in the Pine Room of the Greyhound bus station, Rolla, Thursday night, September 25. The doctors' wives were also in attendance.

The scientific program for the evening was given by James C. Sisk, M.D., St. Louis, who spoke on "The Management of Common Skin Diseases." This was a most interesting and practical discussion. It was illustrated by an excellent group of colored slides.

M. K. Underwood, M.D., *Secretary*

South Central Counties Medical Society Meeting

The South Central Counties Medical Society met at Harry's Steak House, West Plains, on Wednesday night, August 27.

Attorney A. W. Landis, West Plains, was the guest speaker for the evening. He gave an informative talk on "Present Medico-legal Problems."

Following a short business meeting the meeting adjourned and members inspected the new West Plains Memorial Hospital.

M. L. Fowler, M.D., President of the Society, presided at the meeting. Members present included the following: Drs. Spears and Wilbur, Cabool; Harold Miller, Willow Springs; J. E. Lytle, Mammoth Springs, Ark.; and Fowler, Callihan, Wiles and Smith, West Plains. Several of the wives were present at the dinner. The next meeting will be held in Houston.

Rollin H. Smith, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Mineral Area County Medical Society

Henry E. Oppenheimer, M.D., St. Louis, Chairman of the Committee on Diabetes of the Missouri State Medical Association, spoke before a meeting of the Mineral Area County Medical Society at the State Hospital in Farmington on Thursday night, September 25. He discussed the subject "Recent Advances in the Management of Diabetes." This was an interesting and informative presentation.

Jack L. Foster, M.D., *Secretary*

ST. LOUIS SURGICAL SOCIETY TO PRESENT PROGRAM

The St. Louis Surgical Society will have as guest moderator James D. Hardy, M.D., Jackson, Mississippi, for a panel on "The Adrenal Cortex" to be presented at the St. Louis Medical Society Auditorium at 6:00 p.m. November 11. Dr. Hardy is professor and chairman of the Department of Surgery, University of Mississippi Medical Center, and has attained widespread recognition for his investigations in this field. The panel will include:

"Anatomy and General Physiology of the Adrenal Cortex," Dr. Hardy.

"Results of Steroid Therapy in Medical Diseases," Ralph A. Kinsella, Jr., M.D., St. Louis.

"Adrenal Tumors: Current Management of Cushing's Syndrome," Lawrence W. O'Neal, M.D., St. Louis.

"Hypophysectomy for Far Advanced Cancer: Technic and Effects on Adrenocortical Function," Henry G. Schwartz, M.D., St. Louis.

"Adrenal Dysfunction in Children, With Special Ref-

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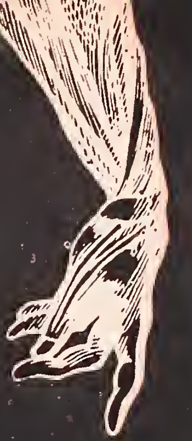

– the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

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Summary of four new published clinical studies:

Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1, 2, 5, 6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL
American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
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"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

erence to the Virilizing Syndromes," Austin R. Sharp, M.D., St. Louis.

There will be opportunity for audience participation in a question and answer period. All members of the medical profession are invited to attend.

CIVIC GROUP HONORS DR. RALPH PERRY

Dr. Ralph Perry, president-elect of MSMA, was honored for his services to his community both as a physician and a citizen recently by the East Business and Professional Association of Kansas City.

At the luncheon held in his honor, Harry S. Davis, city councilman, said: "The real honor is when the people who know you honor you."

Dr. Perry was presented a plaque in recognition of his service and devotion to his community. About 100 persons attended the ceremony, including Dr. Perry's associates, Dr. D. D. Edmonds and Dr. R. S. Long. Dr. Perry and Dr. Edmonds have been associated since 1932. All three physicians are members of the Jackson County Medical Society.

Ralph Perry, M.D.

Dr. Perry was a delegate to the nominating convention in Chicago in 1952 when the Republicans nominated Eisenhower.

In 1945 Dr. Perry was treating casualties on the crippled U.S.S. *Bismarck Sea* near Iwo Jima, when it was sunk. He was wounded in an explosion but managed to stay afloat three hours until he was rescued. For his service at Leyte, the Lingayen Gulf and Iwo Jima, he was awarded three battle stars and the Purple Heart. Dr. Perry still is active in the Navy reserve program.

A.M.A. TO PUBLISH NEW DIRECTORY

More than 250,000 physicians in the United States and Canada are listed in the new 20th edition of the American Medical Directory published by the American Medical Association. The Directory lists 250,621 physicians as compared to 240,638 in the 1956 edition.

The U. S. has 90,359 general practitioners in private practice and 77,644 specialists. There are 7,320 doctors in medical schools, research and other work outside of private practice, and 17,303 holding full time jobs on hospital staffs.

There are 18,398 new names; 1,214 names of physicians whose addresses are unknown, and 7,870 names have been deleted because of death.

The first Directory was published in 1906 and contained 128,173 names.

COURT RULES NATUROPATH A NUISANCE

The Missouri Supreme Court has ruled that William Scopel, Kansas City naturopath, is a public nuisance and should be barred from practicing medicine in Missouri.

The court further told Judge John F. Cook, Jackson County Circuit Court, to issue an order permanently barring Scopel from practice.

Scopel has countered with a $1 damage suit against Paul W. Barrett, commissioner for the supreme court, who prepared the court's opinion. It was filed in the Cole County Circuit Court in Jefferson City.

Scopel operated the American College of Naturopathic Medicine and Laboratory Technique at 1410 Central Street, Kansas City. A previous injunction against him had been dissolved by Judge Cook.

The naturopath contended he used equipment normally used by medical doctors in diagnosing illnesses, then reported his findings to a medical doctor on his staff.

Scopel, a native of Italy, said he was licensed to practice in 1925 under old Indian Territory laws, but the court took note of the fact that the Indian Territory became the State of Oklahoma in 1907, eight years before Scopel came to the United States.

At various times Scopel has described himself as a herb doctor and a corn doctor. He also has maintained he had degrees from schools in Illinois and Arkansas. However, the court ruled:

"We are satisfied that the record . . . demonstrates defendant's utter inadequacy and incompetence for the role he has assumed and satisfactorily establishes that his extensive and unlicensed practice is, in fact, a public nuisance."

The court added that Scopel had "openly, arrogantly and persistently" shown contempt for the court by treating patients despite a temporary restraining order.

UNIVERSITY OF OKLAHOMA PRESENTS PROGRAM

Missouri physicians have been invited to attend the second Oklahoma Colloquy on Advances in Medicine and the Missouri-Oklahoma football game, the meeting being from November 12 to 15, the game on November 15. The sessions on "Arthritis and Related Disorders" are under the direction of the University of Oklahoma School of Medicine, Oklahoma City.

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in the rheumatoid arthritic's shoes,
Doctor...

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†Round-table Discussion by Leading Investigators, San Francisco, Calif., June 20, 1958.

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TUBERCULOSIS ABSTRACT

Community Trials of BCG Vaccination

Although BCG was first administered to a human subject in 1921, its use during the next twenty-five years was based largely on results of laboratory studies and clinical experience gained from vaccinating highly exposed children and young adults. In the United States, little interest in BCG developed until the appearance in 1945-46 of reports of three studies which embodied some of the features now considered essential for adequately controlled trials. In two of these studies much less tuberculosis among vaccinated than unvaccinated subjects was reported. Other investigators could find no effect of vaccination on tuberculosis mortality. At about the same time, interest in BCG was stimulated by the rapidly expanding Scandinavian programs which were soon to culminate in the international mass campaigns sponsored by UNICEF and the World Health Organization.

In spite of a growing enthusiasm for BCG, its use remained limited in some countries, including the United States and Great Britain, reflecting the judgment that convincing evidence of its value was still lacking.

Meanwhile in the United States an advisory committee to the Surgeon General of the Public Health Service had expressed the view, in 1946, that the evidence was not sufficient to justify extensive use of BCG in this country and recommended that the Public Health Service undertake controlled trials in different kinds of population. In line with these recommendations, several trials were planned by the Tuberculosis Program of the Public Health Service. They were to be strictly controlled trials, designed to avoid at least some of the deficiencies of earlier studies. A system of allocation was to be used which would ensure the similarity of a vaccinated and an unvaccinated control group, and every precaution would be taken to avoid bias. Tuberculin reactors, although not considered eligible for vaccination, would be included in the study population. By observing the number of new cases of tuberculosis appearing among the reactors, as well as among the vaccinated and controls, it would be possible to determine how much of the total amount of tuberculosis could have been prevented by vaccinating all nonreactors. The follow-up system would utilize medical, public health and vital statistics reporting systems as an economical way to obtain sufficient and at the same time unbiased information on new cases of tuberculosis which develop in the study population. Large numbers of persons living under various conditions would be followed for a sufficient period of time to obtain information on both the immediate and long-range effects of vaccination.

After exploratory studies in 1947 among school children in Muscogee County, Georgia, and patients of mental hospitals in Georgia and Michigan, four controlled trials were undertaken. To test the value of BCG for selected "high-risk" groups, one trial was started among patients of Ohio mental institutions in 1948, and another among American Indian school children in 1949. A third trial was also started in 1949 among children in Puerto Rico; and, to test the usefulness of BCG in a general population in the continental United States, a fourth trial was begun in 1950 in Muscogee County, Georgia, and Russell County, Alabama. A progress report of the community trials in Puerto Rico and in Muscogee and Russell Counties during the first six to seven years of follow-up observation is here summarized. (The detailed account of the methods and procedures employed in these trials is omitted because of space requirements. Ed.)

SUMMARY

A progress report has been made after a follow-up period of six to seven years of two controlled trials of BCG vaccination, initiated and directed by the Public Health Service. One trial, on children aged one to eighteen years, is in Puerto Rico, an area where tuberculosis has been a serious problem for many years; the other, on persons more than five years of age, is in the community formed by Muscogee County, Georgia, and Russell County, Alabama, where the tuberculosis problem is similar to that found in many other communities in this country. More than a quarter of a million persons were placed under study: 112,000 tuberculin reactors, and 144,000 nonreactors who were allocated by a randomization scheme to vaccinated and control (unvaccinated) groups. For the identification of new cases of tuberculosis appearing in the study populations, the established medical, public health, and vital statistics reporting systems were deliberately chosen as being sufficient for the purposes of the study, and also as being more likely to yield unbiased information than systematic periodic examinations. Certain policies and techniques were adopted as safeguards against the introduction of bias in the diagnosis and reporting of cases.

The most striking finding of both trials was that the risk of developing tuberculosis was much greater for persons who were tuberculin reactors on entry than for those who were nonreactors. Of the total number of cases that appeared during the follow-up period, 75 per cent were among reactors; consequently, only the 25 per cent of the cases that would have appeared among the initial nonreactors could have been prevented if vaccination had been completely effective.

Tuberculosis case rates among nonreactors were low. In Puerto Rico the rate was 43 per 100,000 per year among controls and 30 among vaccinees. The difference, representing 31 per cent fewer cases among the vaccinees than among the controls, is statistically significant. In the Muscogee-Russell trial, the corresponding rates were 22 among controls and 14 among vaccinees, but the difference (36 per cent) is not statistically significant. If all nonreactors had been vaccinated, the total number of cases in the study populations would have been reduced by 8 to 9 per cent—an estimate obtained by applying a reduction of 31 to 36 per cent to the 25 per cent of the cases which would have appeared in those who could have been vaccinated.

The low case rates among nonreactors can be directly attributed to the present low risk of acquiring new infections. Evidence of low and falling infection rates in this country is found both in the present trials and in other recent studies. Because BCG cannot help

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Issued by the National Tuberculosis Association.
Carroll E. Palmer, M.D., Lawrence W. Shaw, M.D., and George W. Comstock, M.D., The American Review of Tuberculosis and Pulmonary Disease, June, 1958.

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those who are already infected, nor those who will not become infected, and may be helpful only to a portion of the decreasing few who will become infected in the future, it is apparent that vaccination cannot be very useful in controlling tuberculosis in this country. Moreover, with the rapid decline in tuberculosis infection, the tuberculin test is becoming increasingly more valuable for epidemiologic, case-finding, and diagnostic purposes. These uses of the tuberculin test are destroyed by vaccination, which makes it virtually impossible to identify the naturally infected persons. And, as those who are already infected are now the group at greatest risk, it is upon them that tuberculosis control activties should be focused if the disease is to be eradicated. The position is taken that in most situations in this country today the advantages of vaccination are outweighed by the disadvantages.

Health Field Lures Labor Unions

(Continued from page 1229)

physician and hospital being imposed by the UMWA.

Yet another giant in the labor field is even now examining the health field. The United Steelworkers Union has called for a broad study with the view to setting up union-operated hospitals and clinics in areas which it feels may need them.

"We are confident that a united and determined membership can win the goal of full medical security for all steelworkers through the process of collective bargaining," union spokesmen declared.

This trend toward more and more union negotiated health and welfare institutes is surprising in view of the increasing availability of voluntary and commercial insurance plans which allow free choice of physician and facilities. It is difficult to understand why the unions do not use these funds to purchase voluntary health insurance plans. Through such a method free choice of physician automatically is available to the workers. This would eliminate at least one of the objections of the medical profession to such programs. In view of recent Congressional investigations into the management of union welfare funds, insurance programs would seem to provide the stable protection that the workers have a right to expect at a price commensurate with the benefits of the insurance policy.

W. F. Francka, M.D., *President*

Across Missouri

(Continued from page 1178)

title; however, the state attorney general's office indicates that additional supporting data is needed.

Meanwhile, the *Kansas City Star* points out the need for some action to preserve the program already in operation in the Center. A recent editorial said:

"The governor seems to be minimizing the fact that the mental hospital offers the state an unusual advantage. Here, also, would seem to be an opportunity which would help Blair fulfill one of his most significant campaign promises: To upgrade Missouri's mental institutions.

"Already in business in Kansas City is a psychiatric center which ranks among the top city operations in the country. One of its finest assets is a training program in which 10 residents are now participating. A first-class training center could be of inestimable value in providing the state with psychiatric personnel."

Kansas City and Jackson County voters will have an opportunity November 25 to clean up another health problem that has plagued the county for years. It is the Jackson County hospital that for years has been receiving bad reports from grand juries.

On the 25th, a special election will be held on the proposed Jackson County charter that would go far toward giving the county home rule.

One of the charter's provisions would consolidate the city and county hospitals and provide ways to eliminate factional politics from the county hospital. It would open the door to set up a merit system in health and welfare facilities.

A new campaign is being planned against the rats in Kansas City. An intensive drive was started in July, but many reportedly still are being seen.

Dr. Abraham Gelperin, health director, explained that heavy summer rains flushed out the sewers, where most of the rat population lives, forcing them to get out and scout around for food.

The Kansas City police department has signed up for a major medical plan, following a strongly worded message by Chief Bernard C. Brannon.

It seems it took a little persuasion from the chief to get sufficient subscribers for the plan to supplement Blue Cross-Blue Shield coverage. When told of complaints of pressure, Brannon said:

"There may have been some mild coercion on the part of commanding officers, but no one told them they had to join. Some of these people have to be led around by the hand."

In St. Louis, the *St. Louis Medical Society Bulletin* shortened its name to *St. Louis Medicine.* The publication started 53 years ago comes out twice a month.

Dr. Edmund A. Smolik, editor, said it was the first medical magazine to be published west of

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the Mississippi River. Associate editors are Drs. Robert W. Kelley and Charles S. Sherwin.

Missouri osteopaths overwhelmingly endorsed a bill to create a joint licensing board during their annual session held in St. Louis. The vote in the House of Delegates was 61 to 4.

The measure previously had been approved by the house of Delegates of MSMA at its session last April in St. Louis. The legislation was recommended by a joint conference committee of the two organizations.

The proposed law would not affect separate practice acts now in effect for dentists, chiropodists, pharmacists, nurses, optometrists and chiropractors.

St. Louis officials are studying the possibility of establishing a municipal center for the treatment of alcoholics. Money for the project would have to come from private sources, in view of the current money shortage problems of the city.

It is planned to use quarters formerly occupied by the hydrotherapy department of Malcolm Bliss Hospital, the city's psychopathic hospital.

Dr. George A. Ulett, medical director of Malcolm Bliss, estimates the center would cost about $70,000 a year to set up and $70,000 a year to operate. He added that St. Louis is the only major city in the United States that has no facilities for treatment of alcoholics.

If established, the center would provide beds for 24 men and six women alcoholics—the approximate ratio in the St. Louis area. There also would be an out-patient clinic.

Dr. Ulett estimates there are about 40,000 alcoholics in the immediate area and that the problem costs the community more than 9 million dollars a year.

Clarence O. Woolsey of Springfield was elected president of the Missouri Bar Association at the group's annual meeting held in St. Louis. He succeeds Harry Gershenson of St. Louis.

During the session, the question of whether courtrooms should be opened up to photographers and television was debated. Specifically the question at issue was canon 35 of the American Bar Association's code of ethics excluding such action.

Judge Sam C. Blair of the Cole County Circuit Court in Jefferson City, a strong believer of more press freedom, has been opening his court up to them. Judge Blair and Governor Blair are brothers.

Dr. Vincent T. Williams of Kansas City represented the American Medical Writers Association at another press freedom event held at Missouri University's school of journalism.

The ceremony honored the 50th anniversary of the journalism school and a special Freedom of the Press commemorative stamp. The school at Columbia is the oldest journalism school in the world.

Dr. Williams, a former editor of *Missouri Medicine,* was presented a portfolio of the first issue 4-cent stamps for his organization. The first day's sale of stamps was expected to run far above the average for a commemorative issue. More than 2,300,000 stamps of the first printing of 120 million were stocked at Columbia for the occasion.

The newspapers of Missouri find themselves divided over the touchy question of branch banking. It seems to be a case of the small rural papers against the big city papers.

The same generally can be said of the state's banks.

The issue which will be presented to the voters in the general election November 4 has had the editorial backing of the *St. Louis Globe-Democrat, St. Louis Post-Dispatch* and the *Kansas City Star.* Out-state with but few exceptions, the newspapers are opposed to the idea.

Missouri Medicine in Review

(Continued from page 1184)

was organized at Troy with twelve physicians as charter members. Dr. W. P. Smith, Troy, was elected president of the Society; Dr. H. S. Harris, Troy, was elected vice-president and Dr. J. J. Allevato, Winfield, was elected secretary and treasurer. On April 5, the Dallas-Hickory-Polk County Medical Society with sixteen members was organized. Dr. A. S. Johnston, Wheatland, was elected president and Dr. J. L. Johnston, Wheatland, was elected secretary. The reorganized Perry County Medical Society which has been inactive for several years, elected Dr. O. A. Carron, Perryville, president; Dr. W. H. Abernathy, Menfro, vice-president, and Dr. J. J. Bredall, Perryville, secretary-treasurer.

The Boone County Medical Society met at the Maples on Highway 40 September 5, with twenty-one members present. The Society honored two of its members who have practiced medicine in Boone County for more than half a century, Dr. W. A. Norris, Columbia, and Dr. E. N. Gentry, Sturgeon, with a dinner and a fellowship meeting. After partaking of a splendid meal the Society adjourned to the lawn where a social meeting was held. A resolution was offered by Dr. Conley, seconded by Dr. Sneed, that each member should use his own discretion at the present time in re-

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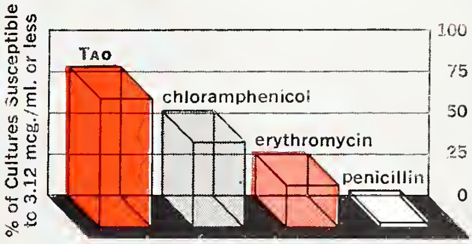

well tolerated. . .

REACTIONS:

(a) adults	**(b) children**
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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gard to joining the NRA. It was evident that every member present was in full sympathy with the purpose and spirit of the NRA but it is difficult to apply a code to a work so highly professional as the practice of medicine.

TEN YEARS AGO

According to the American Medical Association, there were approximately 199,755 living physicians in the United States on June 1, 1948. This does not include June graduates of medical schools. The approximate number of living physicians in the United States is now 17 per cent greater than the 170,163 listed in the 1940 American Medical Association Directory. The population of the United States has increased only 12 per cent since 1940.

Harry K. Cohen, M.D., and Jack B. Brams, M.D., Kansas City, were installed as post physicians of the Liebman-Rosenbloom Post in Kansas City on September 28. Arthur C. Clasen, M.D., was made honorary post physician.

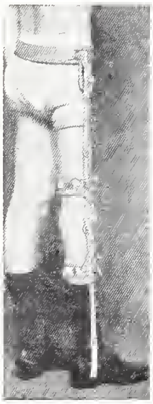
R. B. Watts, M.D., Wellington, was presented a bound volume containing the names of those of the 4,000 babies he has delivered who attended a fair in Wellington on September 25 and signed the volume. Dr. Watts has practiced in Wellington for fifty-four years.

The Clay County Medical Society's first annual clinical conference will be held at the Elms Hotel, Excelsior Springs, on November 4, beginning with a luncheon meeting and continuing through the evening.

The North Central Counties Medical Society met at the residence of Dr. Warner Herington, Green City, on October 7 and members were the guests of Dr. and Mrs. Herington for dinner.

On the evening of October 1, 1948, a combined dinner meeting of the Cole County Medical Society and the Cole County Dental Society was held at the Jefferson City Country Club with seventy-five members and their wives in attendance.

The St. Francois-Iron-Madison-Washington-Reynolds Counties Medical Society was host to fifty-three physicians from the Tenth Councilor District at Farmington on September 23 for a dinner meeting at State Hospital No. 4. S. C. Slaughter, M.D., Fredericktown, president, presided.



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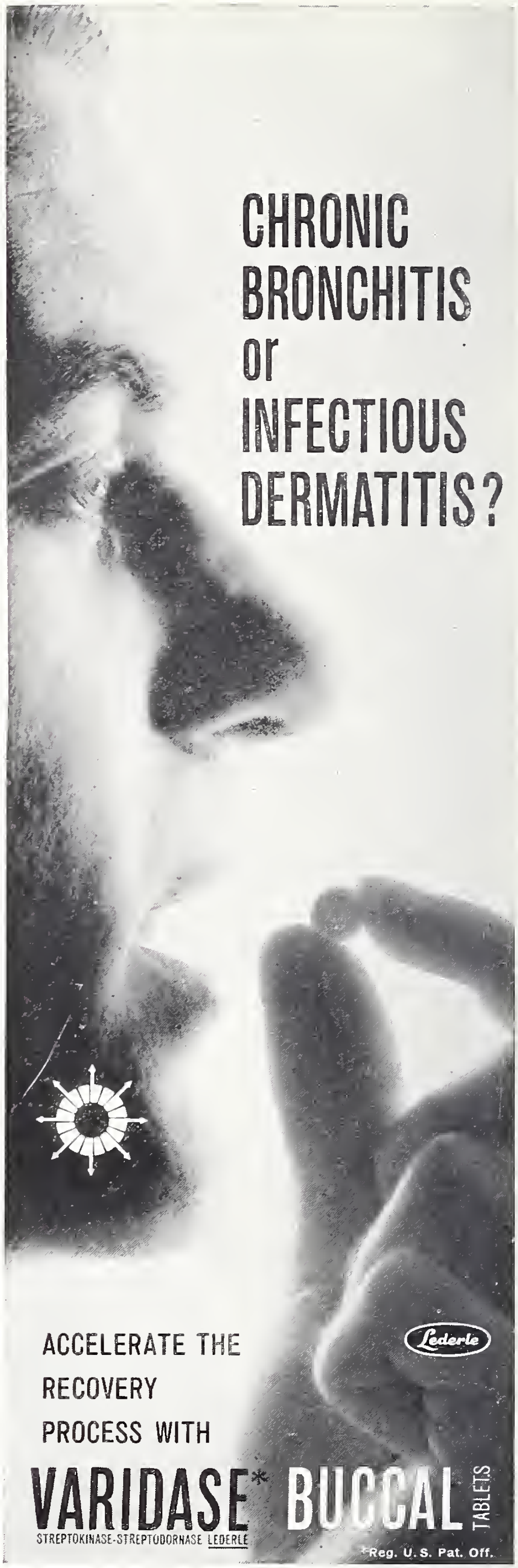

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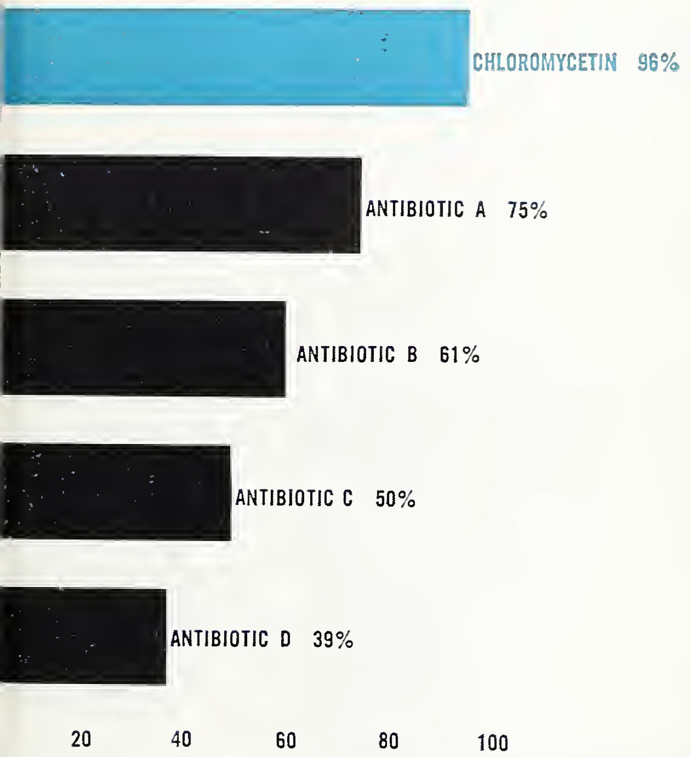
VITRO SENSITIVITY OF PATHOGENIC STAPHYLOCOCCI CHLOROMYCETIN AND TO FOUR OTHER MAJOR ANTIBIOTICS*



apted from Godfrey & Smith.[4] Staphylococci studied were strains isolated from 28 patients in a general hospital.

WASHINGTON

More pressures on the federal government for action of medical care for the aged are predicted by Elliot Richardson, assistant secretary of the Department of Health, Education and Welfare (HEW).

"Unless private, voluntary or local solutions to these and similar problems are found, the pressure for action at higher levels of government will continue to mount," he said at the meeting of the American Public Health Association in St. Louis.

Too few communities, he added, have adequate facilities for long-term care of the chronically ill and dependent elderly persons.

In Washington, the Blue Shield organization is studying the possibility of setting up a separate medical-surgical care plan for low-income groups—including the aged—at the request of the District of Columbia Medical Society. The plan would provide regular benefits but at a reduced premium. The *A.M.A. Washington Newsletter* reports the maximum family income to qualify would be about $3,000. Hospitalization would not be covered.

The Veterans Administration, with 175 hospitals across the nation, has mapped out a major campaign to study mental and physical deterioration associated with aging.

With 15 million dollars voted by Congress this year, the VA also has planned programs to study mental illness, cancer, heart and blood vessel disorders and tuberculosis. In addition, some 50 VA hospitals equipped for use of radioisotopes will have programs to develop new technics of atomic medicine for diagnosis and treatment.

Interest in malfunctions and disease of the older patient has grown with the age of the VA's clientele. The average veteran is in his 40th year, but the average patient in a VA hospital is 50.

Of 22 million living veterans, 1 million are past 65. In seven years there will be 2,200,000 veterans over 65—one in every 10.

The states are expected to stockpile medical supplies and equipment to be used in the event of a major disaster, under instructions of the Office of Civil and Defense Mobilization (OCDM).

HEW has been given broad responsibilities in the health field in time of national emergency. These cover international tension, limited and general war, including massive nuclear attack. (See editorial page, page 1327, on Missouri's new Mobilization Plan.)

"The great difficulty in Civil Defense work is that we are dealing with calculated guesses, with possibilities so awesome that they are difficult to accept," Dr. Leroy E. Burney, surgeon general of the United States Public Health Service, said.

"We must overcome our natural reluctance to admit such possibilities," he told the American Public Health Association. "The realities of today's world lead inescapably to the conclusion that preparedness for civilian defense will be a part of our normal way of life for many years to come."

The national debt has climbed to its highest point since 1956. Completion of a big borrowing of about 3½ billion dollars recently shoved it to $279,335,500,000.

It is expected to climb another 3 billion dollars early this month. All of the borrowing is necessary because of the 12 billion dollar deficit forecast for the fiscal year which began July 1. Income is down, because of the recession, and spending is at a record peacetime level.

Robert B. Anderson, secretary of the Treasury Department, said he expects the debt to exceed 287 billion by June. The government is barred by law from borrowing more than 288 billion. This ceiling will drop to 283 billion automatically next July 1, unless Congress decides otherwise.

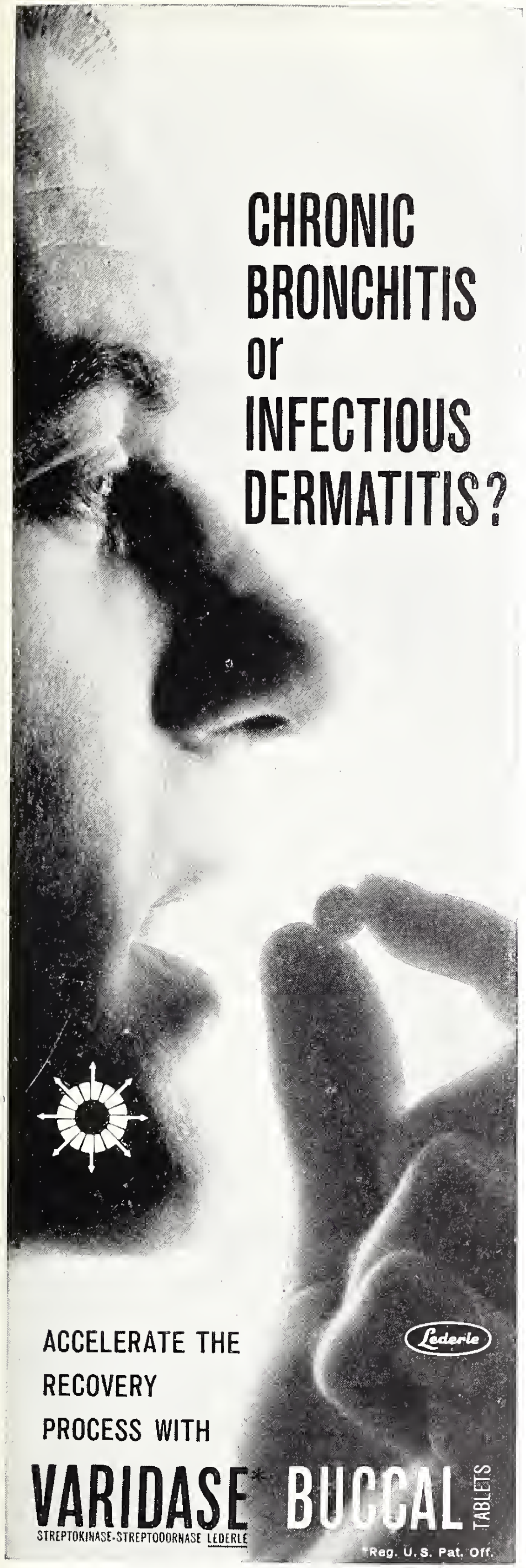
Two Washington officials have called for the training of more physicians to halt "our numerical decline as a world medical power."

Dr. Aims C. McGuinness, special assistant to the secretary of HEW, said more doctors are needed to "bring this knowledge in the form of better medical care to our rapidly expanding population."

Speaking at the American College of Preventive Medicine, he added that unless there is a marked increase "not only the total research effort but the health services of the nation will be severely hampered in the years ahead." He forecast an increased medical research effort and estimated spending this year would exceed 425 million dollars.

A much blunter message was delivered by Surgeon General Leroy E. Burney. In his talk to the American College of Surgeons, he appealed to private enterprise to step up the number of doctors in training and made it clear that government won't stand idly by if it isn't.

Dr. Burney's address had the approval of Arthur S. Flemming, HEW secretary. His talk could be the start of a 1959 compaign by Eisenhower administration to get Congress to enact legislation authorizing operational as well as construction subsidies for medical schools, according to the Washington Report newsletter by Gerald G. Gross.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Entered as second-class matter, February 18, 1925, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Publication Office: 1201-5 Bluff Street, Fulton, Missouri. Editorial Office: 634 N. Grand Ave., St. Louis 3, Mo. Subscription Price: $3.00 Per Year. Printed by The Ovid Bell Press, Inc., Fulton, Missouri.

Across Missouri

Directors of the newly-formed Missouri Dental Service, a non-profit plan to provide dental care to groups, hope their plan will be in operation by the end of this month.

The plan was adopted during the 17th annual Mid-Continent Dental Congress held last month in St. Louis. It is designed to offset the third-party influence in the practice of dentistry.

Unions and large companies have become interested in group dental care plans for members after experiencing unsatisfactory results in negotiating with some individual dentists, plan officials explained.

All is not sweetness and light, however. Many dentists expressed violent opposition to the service plan during the St. Louis meeting.

Opponents maintained that dentists not participating in such a group plan in metropolitan areas would lose many patients. Patients covered by the plan must seek care from dentists belonging to the organization. The patients would, however, have free choice of dentists in the plan.

It also was asserted that patients sometimes will not be able to receive treatment under the plan, because some specialized phases of dentistry probably will not be included in services offered.

Plan directors said standards would be set and maintained by the service to act as a safeguard for the profession. The fee schedule, not yet determined, would be flexible and adjusted to geographical variation thus not endangering the practice of local dentists, they added. Any charges in excess of the fixed amounts would be specified and have the written approval of the patient before treatment.

Articles of Agreement of the organization state no dividend shall be declared by the group and any surplus earnings shall be devoted to social welfare and scientific research.

Similar group dental plans have been established in Washington, Oregon and California.

Dr. William E. Koch, Jr., Webster Groves, was elected president; Dr. W. Wayne White, Kansas City, first vice-president; Dr. Charles B. Holt, Springfield, second vice-president, and Dr. E. D. Suggett, Jefferson City, secretary-treasurer.

A hike in welfare payment likely will be passed by the General Assembly that starts next month, Proctor N. Carter, state welfare director, has predicted.

He feels the maximum monthly payment for those persons receiving old age assistance, aid to the disabled, and aid to the blind will be increased from $60 to $65 a month. Such state legislation would enable the state to take full advantage of increased federal funds provided by 1958 amendments to the Social Security Act.

Carter also predicted enactment of a state medical care program for the indigent.

He quoted Gov. James T. Blair as telling him recently that the establishment of such a program "has been close to my heart for a long time."

This was one of the governor's campaign promises in 1956. But he did not push for the program after taking office because he said he wanted to see just where the state stood on money before any new major programs were started. Under the law at that time, it would have cost about 7 million dollars to fully implement it.

It is felt that the legislators may be asked for a much more modest sum, probably around 1 million dollars, to start the medical care program. It might be limited to hospital costs and perhaps drug bills for just the old folks at the start.

Monthly subsistence payments to old persons and to the disabled went up about $2 a month in October because of the availability of more money under the recent federal amendments.

Carter added that about 137½ million dollars of the current state budget of 539 million dollars now goes to state welfare programs. The federal government provides about 87 million of the 137½ million in relief money, with the balance coming from state revenues.

Two of the state's four welfare programs continue to show an increase, while a third maintains its decreasing trend that started a long time ago.

Aid to dependent children increased several hundred last month to more than 70,000, for a total monthly payment of more than 2 million dollars. The number of families carried under this program also increased slightly to about 25,000, with the average monthly check about $83.

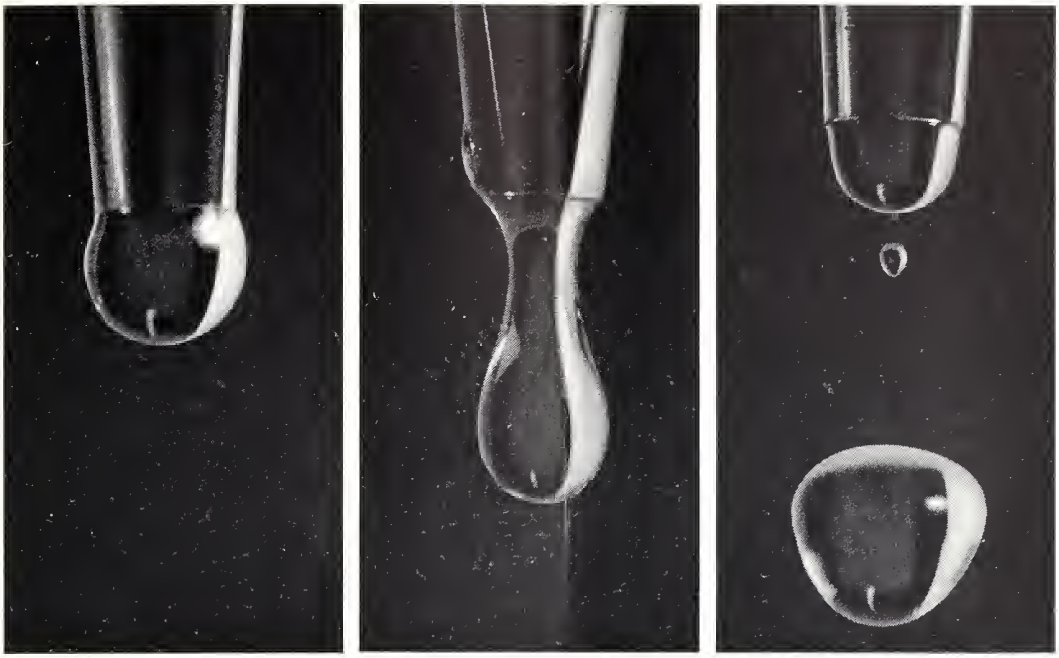
Aid to the permanently and totally disabled also increased to more than 15,000 persons, for a monthly total of nearly $900,000.

Meanwhile, old age assistance continued its steady decline. Nearly 300 were dropped last month, bringing the total on the rolls to about 122,000. The average monthly check was about $56.00, for a total of slightly less than 7 million dollars. Death and the increasing number of persons becoming eligible for social security are the primary reasons for the decline.

The fourth program, aid to the blind, continued its steady course with about 5,000 on the rolls. The blind receive the maximum allowance of $60 a month.

Governor Blair will be urged to ask for more money to expand the state's program for the

(Continued on page 1354)



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SEARLE

Missouri Division of Health

H. M. Hardwicke, M.D., *Acting Director*

COMPULSORY ISOLATION OF RECALCITRANT TUBERCULOSIS PATIENTS

Modern drug therapy in tuberculosis has markedly reduced the death rate in Missouri from tuberculosis. Unfortunately, the number of new cases reported each year has fallen but little. The situation demands an all-out attack to find persons with tuberculosis, to treat them and to prevent their contact with uninfected persons to prevent the spread of the disease.

At least six new drugs have been developed within the last ten years that are of proven value in the treatment of tuberculosis, but none of them, alone or in combination, offers a sure, quick or easy cure for tuberculosis, according to Dr. Charles A. Brasher, Superintendent of the Missouri State Sanatorium. All of these drugs should be used in conjunction with hospital care, bed rest and modern surgery.

Interest in the subject of compulsory isolation has been particularly evident among tuberculosis control authorities within recent years. Arguments are advanced for and against the wisdom of forcible isolation of patients. However, there has been increasing support in recent years for the enactment of legislation to implement this program or for invoking established legislation.

Perusal of reports from other states makes it evident that any person with infectious tuberculosis who disregards public health requirements and thus becomes a public menace can be forcibly isolated. In a few states this isolation may only constitute quarantine in the home. Inherent in the police power of all states is the protection of the health and welfare of its citizens. Since 1948, twenty-two states and two territories have passed legislation for the isolation of recalcitrant tuberculosis patients.

At first glance, it seems ridiculous that a person would intentionally refuse treatment for a serious disease. Actually, most patients do not refuse initial treatment, but refuse the prolonged treatment necessary for the adequate control of tuberculosis. That such is the case is attested to by the fact that from 30 to 50 per cent of patients who leave the State Tuberculosis Hospital at Mount Vernon, do so against the advice of their physicians.

Many factors contribute to cause this: (1) the duration of hospitalization is long; (2) patients are asymptomatic long before their disease is controlled; (3) social and economic problems in the family; (4) psychologic or psychiatric problems; (5) ignorance; (6) alcholism, to mention but a few.

Many of the patients continue therapy at home or return to the hospital and complete their treatment. But a hard core of patients repeatedly refuse adequate care, follow-up and treatment—or repeatedly leave the hospital, making good treatment impossible. Thus, they repeatedly expose family, friends and neighbors to possible infection with tuberculosis. This is the recalcitrant tuberculosis patient, refusing treatment and endangering the health of others.

The recalcitrant patient has long been a problem both to the physician treating tuberculosis and to the public health physician. The problem is not one of easy solution. Some have steadfastly maintained that increased efforts at rehabilitation or psychiatric treatment would solve this problem. Others have been in favor of forceful isolation first, and the use of increased rehabilitation and psychiatric treatment second.

On the basis of the latter approach to this difficult problem, several states have enacted laws and established facilities to detain forcibly the difficult patient. Many of these have been in operation now for several years and serve in most cases to point out the difficulties of this type of treatment, but yet furnish a background of experience for future programs.

A bill for the compulsory isolation of tuberculosis was introduced in the last General Assembly of the Missouri Legislature and although there was no opposition the bill was rejected because of the failure of the Missouri Division of Health and other state agencies to give it proper support.

It is proposed to introduce a substitute Bill for House Bill 25 at the next General Assembly and an appeal is being made to the medical profession for their endorsement and the cooperation and assistance of all state organizations.

The proposed law will define "communicable tuberculosis" as manifested by the following finding: "A laboratory report of sputum or other body fluid or excretion found to contain tubercle bacilli. Such finding shall be considered evidence of communicable tuberculosis for a period of at least three months and thereafter until three successive concentrated 24-hour specimens collected at weekly intervals are found to contain no tubercule bacilli."

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(Continued on page 1358)

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‹ papers presented at the Antibiotics Symposium[1] re-ed the effectiveness of SPONTIN against resistant staphy-ccal infections. Clinical reponses involved enterococcal ocarditis, staphylococcal pneumonias and staphylococcal eremias. Many of these patients were going downhill dily—in spite of treatment by other antibiotics.

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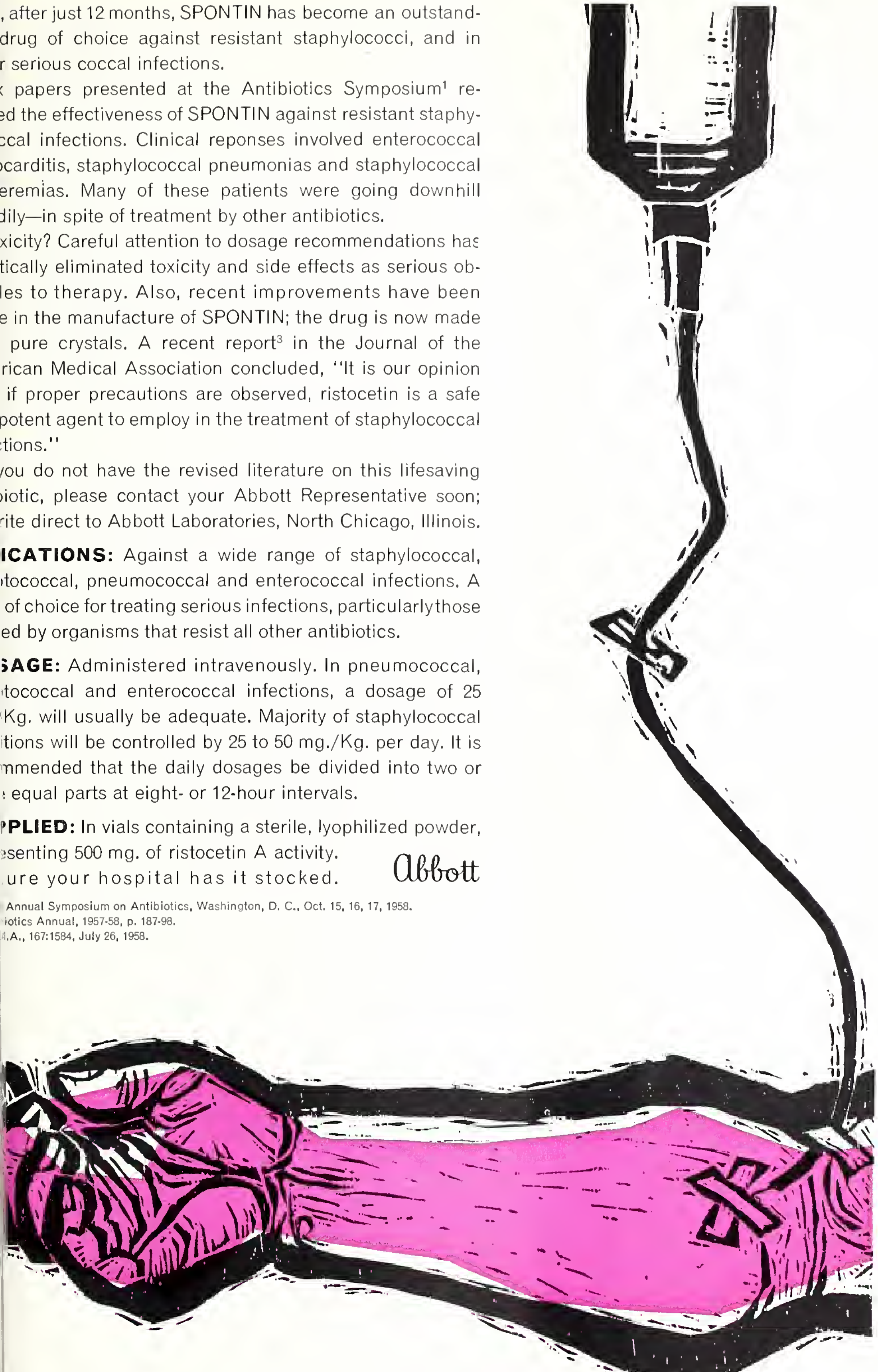

Missouri Academy of General Practice

J. H. Trolinger, M.D.

Before relegating the Tenth Annual Assembly of the Missouri Academy of General Practice to the limbo of history, its extraordinary success would seem to warrant a parting gesture of appreciation of the great meeting it proved to be. Those not fortunate enough to have attended will be interested to learn how greatly it overshadowed any previous Assembly of the MAGP. The aura of enthusiasm it left among attending physicians, speakers, officers, exhibitors and guests is reflected in the total registration of over 600—more than triple that of any previous MAPG function. In addition to 300 physicians, the total attendance included 125 medical students, nurses and technicians. The remaining 175 registered was comprised of physicians' wives, guests and exhibitors. Of the 300 M.D.'s in attendance 82 were from outstate Missouri, 11 from Kansas City and 15 from neighboring states. Such observations, together with the excellence of the scientific and social fare provided, mark it as a major event in the affairs of Missouri medicine, and one which has earned the gratitude of the entire Missouri Academy for those members of its education committee and St. Louis Chapter who labored so diligently and successfully for its consummation.

Academy business transacted at the 10th Annual Assembly included the election of the following officers: President-Elect, Dr. P. C. Hall, St. Louis; Vice President, Dr. William C. Allen, Glasgow, and Secretary-Treasurer, Dr. John Pearl, St. Clair.

New members of the Board of Directors for three year term: Dr. Edward Campbell, Cape Girardeau; Dr. Clifton Smith, St. Joseph, and Dr. Wyeth Hamlin, Hannibal.

Delegates to AAGP Annual Assembly to be held in April of 1959: Dr. Norton Eversoll, St. Louis, and Dr. J. H. Trolinger, Jackson. Alternate Delegates to AAGP: Dr. T. L. Dwyer, Mexico, and Dr. R. R. Becker, Kansas City.

Chairman of the Board of Directors is Dr. R. R. Becker, Kansas City.

The executive committee has tentatively planned to hold the 11th Annual Assembly of the MAGP again at the Chase Hotel in St. Louis, Saturday and Sunday, November 7 and 8, 1959.

Total membership is now 589.

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Woman's Auxiliary

Mrs. Henry C. (*Esther*) Bauman, *President*

At the recent Conference of State Presidents and Presidents elect in Chicago we heard Dr. Howard of the Chicago Office talk on "The Changes Within Organized Medicine." First and foremost is the fact that a 2½ million dollar remodeling job is in process making 535 North Dearborn, A.M.A. headquarters, one of the most modern office buildings in this country. When I view the work this group of people are doing and realize how competently they have answered any request I have made of them I am so glad that they will have the modern facilities that will aid them in their tasks. The second change within the organization which has become familiar to us at this time is the *A.M.A. News.* Dr. Howard felt this was an important addition because better communications is needed between the spokesmanship of medicine and the men for whom it speaks. The third change is the growth of the American Medical Research Foundation. This will be increasing in importance fast now and is our effort to put basic scientific research under the guidance of medicine. He called attention to the changes in the Medicare program telling us that several states will withdraw from this plan.

One of the newest and most extensive programs is in the field of care and needs of the aging. A.M.A. has been trying to find what the aged have in the way of care and from that what is needed. It has been found at this time that across this country 39 per cent have some type of private health insurance. It is our hope that private health insurance will provide more and better care for the aging. In many sections of the country age limitations and restrictions have been lifted—post-payment plans have been promoted—and plans for domiciliary care are rapidly expanding. Leadership in this positive program is provided by A.M.A.-A.H.A.-A.D.A.-A.N.H.A. who have provided the work done through this council for Health Care of the Aged.

Another important concept about which we will be hearing is the Free Choice of Physicians. In our effort to keep medicine out of governmental control we must convince first our own physicians, then the public and then the third parties involved, by peaceful persuasion, that all of us will be happier, more competently cared for under the plan of free choice of physicians. Freedom of choice is so gradually taken away from people, mainly by third party involvement, that by prepayment plans, the privilege of choice is lost before we are aware of what has happened. So it becomes urgent that we lay the foundation for this type of program by convincing people that their choice is at stake. Another concept under fire and discussion is the Voluntary Health Funds versus the United Funds. He urged our support of both at this time.

The A.M.A. president Dr. Gundersen talked to us on the greatness of World Medicine calling to our attention that the nations of the world are looking to medicine to lead in the thinking of the world. One of the projects of the World Medical Alliance is establishing the National creditation system in order that physicians will have a place other than their own country where credits are registered, thereby eliminating some of the confusion that has resulted from the last war experiences.

Medicine has become a pivotal point around which other ideas rotate. It is having a leavening effect upon the turmoil in this world.

How does our A.M.A. face up to this need of the world? Within the organization at the A.M.A. headquarters there are 24 departments reporting to one head. There are over 600 employees in Chicago office and there are 25 employees in the Washington office who try to shape the thoughts and hopes of physicians everywhere into a policy that can be followed by all. We must continue to try to present a positive program and a united front in the midst of confused thinking. These basic concepts are to be carried out and shown to the world and will be bringing organization within our own group.

DR. McVAY HONORED BY SEARS FOUNDATION

Dr. James R. McVay, Sr., Kansas City, received a plaque from the Sears-Roebuck Foundation for his help. The inscription on the plaque stated his service on the medical advisory board of the foundation had resulted in better medical distribution in the United States. The ceremony was held at a recent meeting of the Jackson County Medical Society.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The new bill to provide for compensation of workmen sustaining accidental injury in line of duty will be introduced in the legislature next January. The bill is almost identical with those presented in previous sessions but it has been modified by giving the injured employee the right to choose his own physician and hospital if he desires to do so, a condition that the medical profession fought for in the past but was not included. While the bill limits the amount to be paid for all medical and hospital treatment to $200 for the first eight weeks of disability, the commission administering the law is authorized to extend both these limits "to such time and amount as may reasonably be necessary."

Our service flag contains 1,499 stars and four gold stars, the latter representing the supreme sacrifice paid by the following Missouri physicians, all of whom were members of our association: Lieut. William T. Fitzsimmons, Kansas City, killed Sept. 4, 1917, when a German aeroplane dropped bombs on the Base Hospital of the Harvard Unit at Rouen, France, in which he was serving; Lieut. Floyd S. Bates, M.C., Adrian, Mo., killed by lightning at Fort Riley, August 6, 1917; Lieut. Frank V. Frazier, M.C., Altamont, Mo., died in a military hospital in France from bomb wounds, March 24, 1918; Lieut. Charles R. Long, M.C., Sedalia, Mo., killed by a shell explosion while returning from duty in the front line in France, April 26, 1918. Those who have been reported prisoners of war are: Lieut. Louis M. Edens, Cabool; Lieut. Harold A. Goodrich, Webster Groves; Capt. John F. Hardesty, Winfield (formerly at St. Louis); Capt. Arthur H. Sewing, St. Louis. The total number represents all physicians commissioned from Missouri, whether members of our Association or not up to November 11, on which date the War Department stopped giving commissions. The number of physicians commissioned represents 24.7 per cent of the total number of practitioners in the state.

Dr. J. L. Eaton, superintendent of Hospital No. 4, Farmington, announces that he has established a training school for nurses at the institution.

In recognition of his distinguished services in behalf of military sanitation, Major-General William C. Gorgas, until recently Surgeon-General, United States Army, has been made grand officer of the Order of the Crown of Italy. The ceremony of presentation took place on November 5, in the office of the Surgeon General, the order being presented by Major-General Emilo Guglielmotti, military attaché of the Royal Italian Embassy.

TWENTY-FIVE YEARS AGO

In pursuance of the request of the State Department of Health that an advisory committee of members of the State Medical Association be appointed to cooperate with the board in matters of a medical nature affecting the practice of medicine, President Allee has appointed the following committee: Dr. McKim Marriott, St. Louis, dean of Washington University School of Medicine; Father Alphonse M. Schwitalla, St. Louis, dean of St. Louis University School of Medicine; Dr. Dudley S. Conley, Columbia, dean of the University of Missouri School of Medicine; Dr. A. R. McComas, Sturgeon, Chairman; Dr. W. H. Breuer, St. James; Dr. Jabez N. Jackson, Kansas City, and the Secretary of the State Medical Association, Dr. E. J. Goodwin, St. Louis, ex officio.

Dr. O. Jason Dixon, Kansas City, was a guest of the New York Academy of Medicine on October 18 and delivered an address on "Sinus Thrombosis."

Dr. J. L. Myers, Kansas City, was reelected secretary of the ear, nose and throat section of the American Academy of Ophthalmology and Otolaryngology at the thirty-eighth annual session held in Boston, September 18 to 22. Dr. Hal Foster, Kansas City, organized the Academy in Kansas City thirty-eight years ago. Those attending this session from Kansas City were Drs. J. L. Myers, Sam Roberts, Hal Foster, Morris Simpson and Wallace Beil.

Dr. Morris Fishbein, Chicago, editor of the *Journal of the American Medical Association,* was the guest of the St. Louis Medical Society November 28 at a meeting in honor of the past presidents of the Society.

The one hundredth anniversary of the publication of William Beaumont's "Experiments and Observations on the Gastric Juice and the Physiology of Digestion" was celebrated by the St. Louis Medical Society November 21, Dr. Beaumont's one hundred forty-eighth birthday anniversary.

The Halloween meeting at the Snapp Hotel in Excelsior Springs, October 26, was one of the best in the history of the Clay County Medical Society. Thirty-five members, wives and guests were present for a turkey dinner at 6:30 p.m. Dr. Spence Redman, Platte City, Councilor, was present.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Vol. 55 December, 1958 Number 12

Multiple Primary Malignant Lesions Of the Large Bowel

RONALD C. PASSMORE, A.B., and GRAFTON A. SMITH, M.D., *Columbia*

Multiple primary malignancies of the large bowel should no longer be considered uncommon. A second carcinoma must be suspected in all patients with a known rectal or colic neoplasm. These second malignant lesions can be recognized and treated while it is yet possible to do a curative resection, when proper methods of diagnosis and suitable surgical procedures are considered and applied. Recent experience would seem to justify this report concerning multiple carcinomas of the large bowel.

The occurrence of multiple colic cancers, as well as the simultaneous occurrence of malignancies elsewhere in the body, has received acceptance slowly for several reasons. Billroth, in 1889, was the first to describe the criteria for identifying separate independent tumors and reported a case with multiple malignancies of the colon. His standards dominated the thinking for more than half a century.[5] They are: (1) Each tumor must have an independent histologic appearance. (2) The tumors must arise in different locations. (3) A tumor must produce its own metastases. Later, Mercanton, 1893, added a fourth criterion: A patient must remain free of disease following removal of multiple lesions and thus demonstrate that the growths were primaries and not metastases.[24] Together, these criteria were lacking in that they did not offer sufficient explanation of the possibility that two primary malignancies of similar histology could arise in the same organ, such as the large bowel. Therefore, these standards gave a false impression and led to the belief that a low incidence of multiple primary malignancies existed. Multiple primary cancers were considered as being infrequent until 1932 when Warren and Gates published their comprehensive review of the literature on multiple malignancies of all types.[35] Their studies suggested more reasonable and functional criteria: (1) Each tumor must present the picture of malignancy. (2) Each tumor must be distinct. (3) The possibility of one being a metastasis of the other must be excluded. These less restrictive criteria were generally adopted.

Another factor, which further prevented recognition of multiple primary malignancies for many years, was the thought that having one malignancy made a patient immune to having a second malignancy. Fortunately, it is now known that the occurrence of one lesion makes an individual more likely to have a second lesion on the basis of statistical incidence.[17] The acceptance of better criteria for recognition and the abandonment of the theory of immunity to cancer have improved understanding and have shown a decided increased incidence in reported multiple primary malignancies in recent years.

Mutiple malignancies can occur either simultaneously or serially, although most authors do not differentiate the two groups for statistical purposes. Among reports which have made this distinction, simultaneous lesions were found to be more numerous.[4,27,32,33,34] This is not what one might expect on the basis of increased survival rates among patients with resections for malignancy and a future opportunity for the individual to develop a second lesion. Possible explanations might be: (1) Patients with more than one lesion, lacking some factor found in the general population, may be more susceptible to malignancy. These patients could have a greater chance either

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of developing two lesions simultaneously, or developing a second lesion before the first one was diagnosed. (2) There is a tendency to call any second lesion in the same organ a recurrence of the first lesion. In this respect, unless the surgeon does a radical resection and finds no regional lymph node metastases, he may have difficulty in calling a new tumor a second primary. Unfortunately, the procedures done in cases of carcinomas of the large bowel are often not extensive enough to make a clear cut distinction between a recurrence and a new primary. (3) These cancers occur at an older age and often other causes of death intervene before a second tumor develops.

TABLE 1

MULTIPLE PRIMARY MALIGNANCY OF THE COLON AND RECTUM

Reporting Source	*Total Cases of Malignancy of the Large Bowel*	*Multiple Primary Malignancies*	*Percentage*
Bacon and Tavenner[2]	1,170	71	6.1
Berson and Berger[4]	344	16	4.7
Brindley[4]	306	8	2.6
Dunning, Jones, and Hazard[9]	102	3	2.9
Ginzberg and Dreiling[13]	700	25	3.6
Hultborn[15]	411	17	4.1
Mider[24]	726	21	2.9
Stearns[29]	57	11	19.2
Stenstrom and Ford[30]	1,000	48	4.8
Thomas, Dockerty and Waugh[32]	4,350	132	3.0
University of Missouri Medical Center	18	3	16.7
Total	9,184	355	3.9

Table 1 is a compilation of the incidence of multiple malignancy of the colon and rectum as found at the University of Missouri Medical Center and elsewhere. It does not differentiate between simultaneous and serial lesions and does not include those cases which resulted from familial polyposis and ulcerative colitis. Incidence of multiple lesions was 16.7 per cent among the cases seen at the University of Missouri Medical Center, but the occurrence rate here and from other sources averaged only 3.9 per cent. This was the more generally accepted rate, but Hultborn considers the true incidence of multiple malignancies of the large bowel to be greater than 4 per cent.[15] Actually, the incidence will not be known until the better diagnostic aids are widely used and more cases of cancer are studied.

Currently, several diseases are known to predispose single or multiple colic cancers. Familial polyposis is a condition which inevitably gives rise to multiple malignancies if allowed to go untreated.[9,13] Families possessing this trait must be followed carefully and any member having the disease should be urged to undergo an early total colectomy for prevention of malignant degeneration. Chronic ulcerative colitis, another condition which is precancerous, can give rise to multiple malignancies.[19] There is agreement that the incidence of cancer increases with the duration of the disease; and, according to Cattell, the tendency toward malignant transformation can be as high as 30 per cent if the disease is of ten or more years duration. Again, only total colectomy can afford real protection among patients with actively recurring disease. Finally, adenomas, or polyps, are generally thought to give rise to malignancy, although the time required for such changes has not been established.[1,3,7,18,20] Therefore, it is generally agreed that complete excision of the polyp is the treatment of choice.

Adenomas are of particular interest because of their high incidence in the general population and their not infrequent occurrence in association with a simultaneous malignancy. Atwater and Bargen found the incidence of polyps to be 69 per cent in a series of 241 autopsies in which the colon was surveyed with a magnifying glass.[1] Other authors have shown the incidence of grossly detectable polyps to range from 2.3 per cent to 21.5 per cent.[3,7,20] Jackman and Mayo noted the incidence to be 12 per cent in the examination of 1,000 supposedly well patients, 30 years of age or older.[17] Another report describing the experience at a cancer detection center states that 17 per cent of 3,364 supposedly well patients, 40 years of age and older, had one or more polyps of the colon or rectum.[12] These tumors would seem to occur more frequently among the older age group. Of further interest is the fact that often one or more polyps are found in connection with a malignancy, and that the percentage of such polyps found varies directly with the amount of bowel resected at the time of operation. Others have stated the percentage of associated polyps to be from 20 to 45 per cent.[4, 10, 27, 33, 31] Wangensteen, in doing 73 near total colectomies, found polyps in 21 patients which would not have been found if only a hemi-colectomy for the primary cancer had been done.[22] Stone found that 17 per cent of the polyps associated with carcinomas of the large bowel showed malignant changes. Obviously, it is important to look for and excise these associated lesions at the time of operation.

The diagnosis of multiple lesions is similar to the diagnosis of a single lesion, differing only in that the surgeon must always consider the possibility of a second lesion and make every effort to recognize it. Each patient who presents himself with symptoms of a large bowel cancer should have a thorough evaluation including digital examination, x-ray studies, and proctoscopy. Preparation of the colon by castor oil purge and high enema is most helpful. Further, evacuation films and air contrast studies enable the roentgenologist to find many lesions he is unable to visualize by use of barium contrast media alone. These studies usually complete the preoperative search for multiple lesions.

Even though no second lesion had been demonstrated at the time of operation, the surgeon who has found a colic cancer should further consider the possibility of another occult lesion. The large bowel is carefully palpated, but this procedure may not be reliable unless the bowel was emptied before surgery. Occasionally, if areas of induration and suspected lesions are found, a colotomy and biopsy should be performed. Some surgeons, following regional resection of the lesion, have introduced a sterile proctoscope into the remaining colon prior to anastomosis of the bowel. Other colotomies can afford entry for examination of the more distant segments of the colon. Although these technics have lacked general acceptance due to possible peritoneal contamination, they sometimes show an unsuspected lesion. Many present-day surgeons do a hemi-colectomy with inclusion of the mesentery in cases of malignancy of the colon. These operations have been more effective, but the five-year survival rate for cancer of the colon might be further improved by removal of all possible secondary lesions in doing near total colectomies in all operable cases of cancer of the colon.

The first reference to total colectomy was by Lane in 1914.[18] He recommended a one-stage colectomy for malignancies and polyps of the colon and for chronic constipation. He had an operative mortality rate of less than 10 per cent, a truly remarkable result for that time. Wangensteen has been using near total colectomies for some ten years in all cases of malignancy of the left colon and in selected cases or malignancy of the right colon.[22] He maintains a hospital mortality rate of 5 per cent which compares favorably with less radical resections in recent years. Also, diarrhea has not been a problem when the terminal reaches of the ileum were preserved.

After an operation for a malignancy of the large bowel, the patient should be followed carefully with regular check-ups and proctoscopic examinations to ensure the finding of a recurrence or a new primary lesion as early as possible.[22, 23] Another center has advocated an even more elaborate follow-up for those patients having involved lymph nodes at the time of operation.[21] A "second-look" operation can be of value in some of these cases. These patients undergo an exploratory operation every six months, with excision of all suspiciously cancerous tissue, until an exploration reveals no evidence of malignancy. This procedure has been used by one of the authors in selected cases, and it has undoubtedly proved a life-saving procedure in some instances.

SUMMARY

The occurrence of multiple primary malignancies of the colon and rectum has been reviewed at the University of Missouri Medical Center. The incidence was 16.7 per cent. This experience was considerably greater than that presented in the literature, with an average occurrence rate of 3.9 per cent. The problems of recognition, diagnosis and treatment have been discussed. It would appear that in selected cases adoption of more extensive primary resections and the second-look operation could better the results among this group of patients.

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Hypaque Sodium Powder

A New Gastrointestinal Opaque

WM. E. ALLEN, JR., M.D., *St. Louis*

A Preliminary Report

Barium sulfate has for many years enjoyed an unchallenged position as the opaque medium of choice in x-ray examinations of the gastrointestinal tract. However, some gastrointestinal studies are required under circumstances in which the use of barium sulfate suspensions are contraindicated or inadvisable. Some such instances are possible perforations, hemorrhage and certain obstructions. There are other instances such as the visualization of fistulas, intra-abdominal cavities and the study of partial obstructions in which the barium suspensions may become trapped and inspissated aggravating an already potentially dangerous situation.[1]

An opaque medium without the disadvantages or possible untoward sequelae of barium sulfate suspensions and which could also meet the large volume requirements that oily opaques can not meet would make a useful addition to diagnostic needs. The medium also must be nonirritating and must be eliminated eventually from any closed cavity or sinus tract in which it may be injected. I agree with Davis et al.[2] that there is a need for an opaque medium for use in the gastrointestinal tract that is a solution, that is nonabsorbable and that would be nontoxic if by accident or by design it was introduced into the body cavities.

CONTRAST AGENT

A new gastrointestinal opaque has recently become available which answers these requirements quite satisfactorily.[1-4] It is Hypaque® Sodium Powder. The medium is a nontoxic, nonirritating water soluble powder which can be made readily into concentrations giving any desired density. Dissolved in water it gives a true solution rather than a suspension. It is rapidly eliminated from the gastrointestinal tract. It is nonirritating to the peritoneum and is slowly absorbed from the peritoneal cavity, sinus tract or closed cavity into which it may be purposely or accidentally injected. It remains sufficiently long however to permit adequate x-ray studies; yet the elimination is rapid enough to permit studies with other opaques without undue delay if they are indicated. This frequently cannot be done when barium sulfate suspension is used because of the retention of the barium in the gastrointestinal tract obscuring detail. The medium may be given by mouth, by stomach tube, injected into the duodenum as a small bowel enema, injected into colostomy openings, fistulas, sinus tracts, closed cavities and as a single contrast colon enema.

Given orally, the medium has a bitter taste which caused Canada[5] to use the stomach tube and Epstein[1] to use various flavoring agents in their use of somewhat similar solutions. In the beginning of this study the stomach tube was used for upper gastrointestinal studies but soon abandoned because of patient objections and other difficulties. Then various flavoring agents were resorted to and finally flavor coated drinking straws were used. However, since in no instance has a patient refused to drink the medium because of the taste and only complained about the taste upon inquiry, the straws have not been used in the last twelve cases. This is true of both children and adults.

PROCEDURE

During the ten-month period, June 1957 through March 1958, Hypaque Sodium Powder has been used in the study of 87 cases as summarized in table 1. Twenty-five of the cases were patients re-

TABLE I

PRELIMINARY STUDY

Routine Upper Gastrointestinal Tract	15
Routine Lower Gastrointestinal Tract	10
Special Studies	
Pyloric Stenosis (Infant)	1
Pyloric Obstruction (Adult)	4
Gastrointestinal Bleeding	2
Anomaly of Gastrointestinal Tract	1
Pharyngeal Mass	1
Diaphragmatic Hernia	2
Ruptured Diaphragm	1
Subdiaphragmatic Abscess	1
Bleeding Peptic Ulcer	3
Differentiation of Paralytic and Mechanical Small Bowel Ileus	10
Location of Point of Intestinal Obstruction	3
Suspected Ruptured Peptic Ulcer	4
Suspected Ruptured Colon Diverticulae	3
Suspected Ruptured Appendix	1
Obstruction at Intestinal Anastomosis	2
Suspected Leak at Intestinal Anastomosis	2
Obstruction of Colon	6
Differentiation of Mechanical Ileus from Hyperemesis Gravidarum	1
Perineal Fistulae	2
Postoperative Gastrointestinal Fistulae	1
Injection into Fistulas	3
Injection into Sinus Tracts	6
Needle in Gastrointestinal Tract	1
Glass in Gastrointestinal Tract	1
Total Number of Cases	87

Department of Radiology, Homer G. Phillips Hospital and St. Mary's Infirmary, St. Louis.

The Hypaque Sodium Powder (Oral) used in this study was furnished by the Department of Medical Research, Winthrop Laboratories.

ferred for routine gastrointestinal studies and were used to develop technics, determine optimum concentrations and to study possible toxic effects or undesirable sequelae. In this study it was found that 200 cc. of a 25 per cent solution gave adequate visualization and opacification of the stomach and small bowel, and 1,000 cc. of a 12.5 per cent solution was satisfactory for study of the colon. The 25 per cent solution was used for injection into fistulas, body cavities, sinus tracts and in small bowel enemas. Hypaque Sodium Powder in my opinion does not replace barium sulfate suspension for routine gastrointestinal studies, but is much superior to barium in the study of those cases in which the special indications for its use are present.

DISCUSSION

As a result of these investigations Hypaque Sodium Powder is considered superior to barium suspensions for gastric mucosal relief studies. The density of the solution did not obscure the fine mucosal detail of the stomach as barium frequently does. It was, however, not as satisfactory as the barium mixture for small bowel mucosal detail, study of the pharynx and esophagus or for double contrast colon enema studies. No evidence of toxicity or untoward sequelae attributable to the medium was noted in any of the 87 cases of the series. The medium does pass through the gastrointestinal tract rapidly, being seen in the ascending colon as early as one hour after oral administration in some cases. This accelerated transit time is a desirable feature in serial small bowel studies when one must differentiate quickly between a paralytic and a mechanical ileus or locate a point of obstruction. Concentrations of 50 per cent gave definite diarrhea. Since the 25 per cent concentration was found quite satisfactory, the 50 per cent was used in only 4 cases, two of which were special colon studies. The youngest patient in the series was 8 weeks of age, the oldest 79 years.

It is believed that one of the most useful applications of Hypaque Sodium Powder is in the differential diagnosis of paralytic and mechanical ileus, especially in recent postoperative cases. The prolonged arrest of the opaque medium in the bowel not only establishes the diagnosis but also locates the point of obstruction. It is most useful in establishing the diagnosis when the survey films are negative or equivocal (case 1). There have been instances in which a thin barium water suspension failed to traverse the small bowel in cases of paralytic ileus resulting in an erroneous impression of a mechanical obstruction. Although the series is too small to be of statistical significance, it is interesting to note that in the absence of organic obstruction the Hypaque solution is seen at the cecum in from two to three hours. It does not appear to initiate peristalsis.

As a retained pressure enema in the visualization of rectal fistulas and sinus tracts and in the direct injection into fistulas and sinuses, the medium proved helpful. It also gave valuable information when injected into draining subdiaphragmatic abscesses (case 5). Obviously barium suspensions could not be used in these cases and because of the large volume required and possible prolonged retention opaque oils could not be used.

The medium is nonirritating to the peritoneum and is absorbed slowly. When retained in the bowel it does not interfere with subsequent surgery. When requested by the referring surgeon it has been used in cases of bleeding peptic ulcer, suspected perforation of a diverticulum or peptic ulcer and in one case of a suspected ruptured appendix with a walled off abscess. In two cases of apparently complete obstruction of the colon due to an annular carcinoma, the Hypaque solution traversed the constricted segment when fortunately the barium suspension did not. In suspected partial colon obstruction Hypaque Sodium solution is always used to avoid the possibility of trapping inspissated barium proximal to the obstruction, changing it from partial to complete. Two attempts to study the colon proximal to the obstruction by the oral administration of Hypaque Sodium were unsuccessful. In the first case the 25 per cent solution used was so diluted by the colon contents proximal to the obstruction that inadequate opacification was obtained. In the second case the 50 per cent solution given traversed the constriction without difficulty opacifying the entire colon.

When used in cases of ruptured diaphragm and diaphragmatic hernia the medium is useful in the identification of viscera in the thorax. It proved to be the only medium that was felt could safely be used in testing the adequacy of an intestinal anastomosis when leaking was suspected, in the investigation of suspected communication between the bowel and the peritoneal cavity and in suspected stricture of an intestinal anastomosis (case 3).

One is hesitant to use barium sulfate suspensions to localize foreign bodies in the gastrointestinal tract. The dense barium may obscure a small object such as a needle and, in the event of a perforation, leakage of barium into the peritoneal cavity would be most undesirable. In one case a 50-year-old woman had swallowed a sewing needle. The needle remained in the right mid abdomen for ten days. Perforation was suspected. Hypaque Sodium colon enema followed by a small bowel study revealed the needle to be in the duodenum and it was removed. The needle was easily seen through the hypaque shadow.

Six cases illustrating the usefulness of Hypaque Sodium Powder and the wide variety of lesions in which its use is indicated are reported. These are selected as examples from the 87 cases of our series.

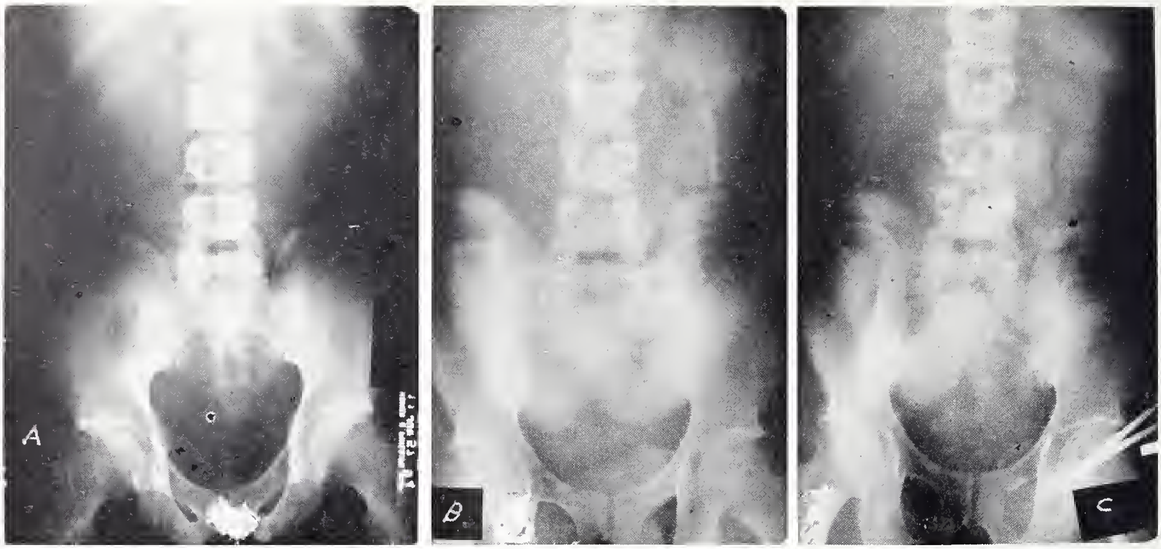

Fig. 1. (Case 1). A. Radiograph of the abdomen showing no evidence of intestinal obstruction. B. Radiograph made one hour after oral administration of sodium hypaque solution showing dilated obstructed bowel and point of obstruction. C. Repeat examination made two hours after administration of oral hypaque solution. Medium arrested in same location as at the one hour examination.

REPORT OF CASES

1. A 68-year-old male patient was admitted to Homer G. Phillips Hospital with vomiting, abdominal distension and a history of no bowel movements for 36 hours. A clinical diagnosis of mechanical ileus was made but survey x-ray film of the abdomen was negative for evidence of obstruction (fig. 1). An x-ray examination made one hour after the oral administration of 25 per cent Sodium Hypaque solution revealed a distended small intestine completely obstructed in the mid ileum. A repeat examination made at two hours revealed no change in the position of the opaque medium.

At operation, obstruction of the mid ileum due to a dense adhesive band was found.

Case 2. This 72-year-old female patient at Homer G. Phillips Hospital had had a resection of a large segment of the colon and an end to end anastomosis of transverse colon to the sigmoid. A colostomy proximal to the anastomosis was performed. Later attempts to close the colostomy and obtain passage of colon contents through the rectum were unsuccessful. Hypaque

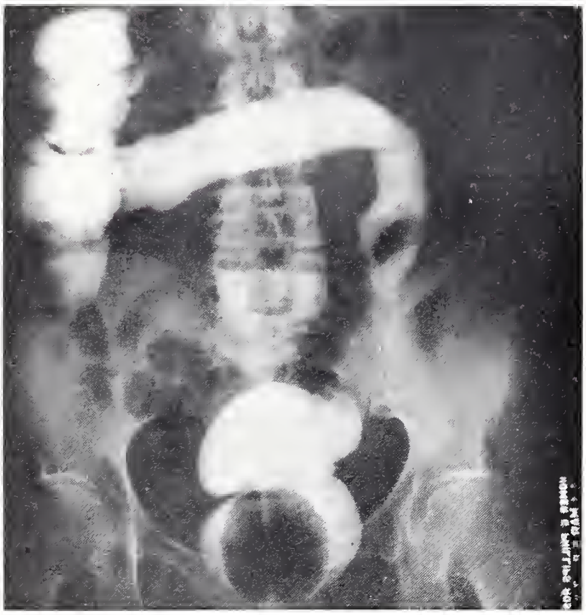

Fig. 2. (Case 2). Combined colostomy injection and hypaque enema. The colon is obstructed at the anastomosis.

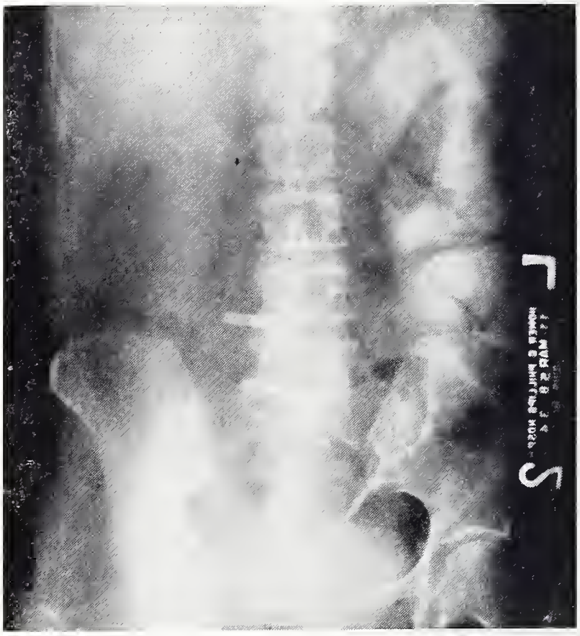

Fig. 3. (Case 3). Mechanical obstruction of ileum well demonstrated two hours after oral administration of hypaque solution.

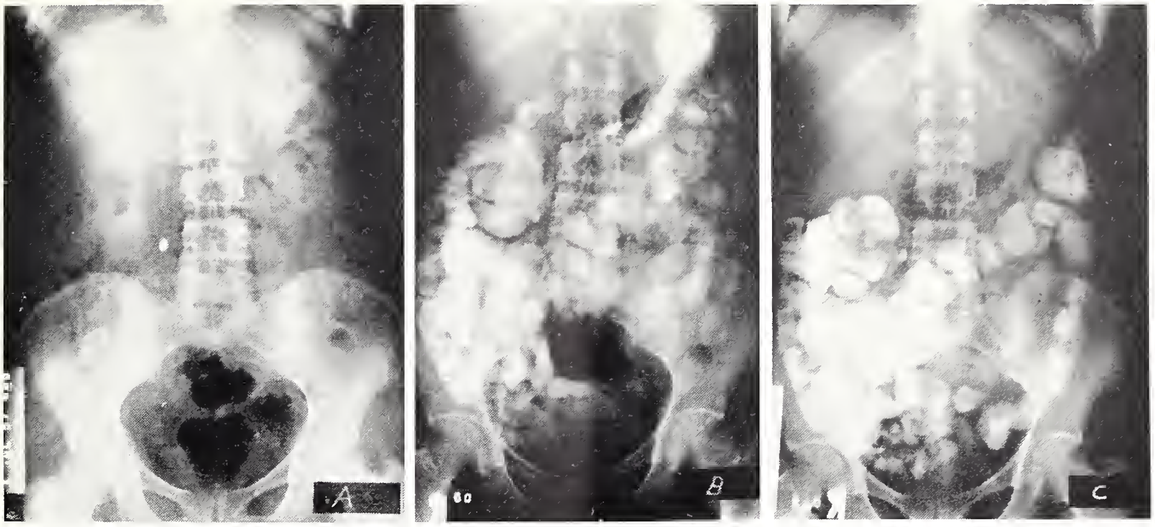

Fig. 4. (Case 4). A. Survey film of abdomen. The intestinal gas pattern is somewhat abnormal. B. Film made one hour after oral administration of hypaque sodium solution. C. The opaque medium is in the sigmoid colon at the four hour examination.

enema studies combined with the injection of hypaque proximal to the anastomosis through the colostomy opening revealed complete obstruction at the anastomotic site (fig. 2).

Case 3. A. 79-year-old female patient at Homer G. Phillips Hospital developed abdominal distention, vomiting and an absence of peristalsis one week following operation for a ruptured appendix. Survey x-ray films of the abdomen revealed generalized gaseous distention of both the large and small bowel. A provisional diagnosis of paralytic ileus was made but serial oral Hypaque studies revealed mechanical obstruction in the ileum (fig. 3). At operation both mechanical and paralytic ileus were found due to a large intra-abdominal abscess with an adherent obstructed loop of ileum.

Case 4. This 32-year-old female patient was admitted to St. Mary's Infirmary with abdominal distention, vomiting, obstipation and a history of seven abdominal operations. The last two of these were for mechanical intestinal obstruction due to postoperative adhesions. Survey films of the abdomen were equivocal (fig. 4 left). Radiographs made one hour after the oral administration of Hypaque Sodium solution

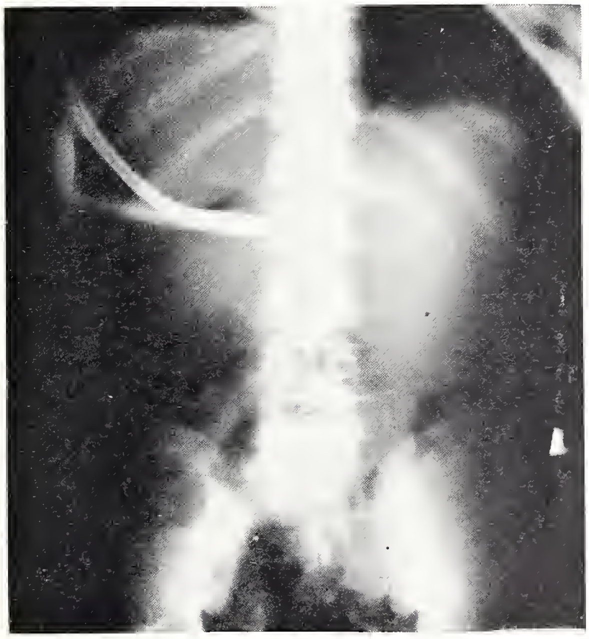

Fig. 5. (Case 5). Superficial abscess pocket filled with hypaque solution. There is no communication with the deep intrahepatic abscess.

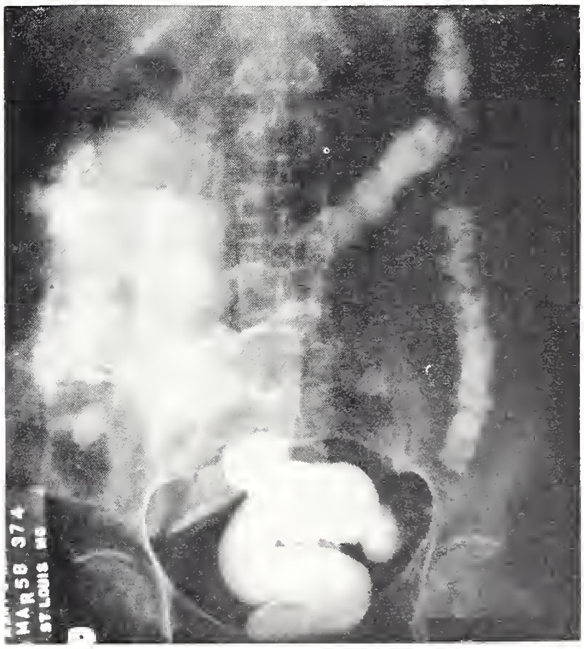

Fig. 6. (Case 6). Spilling of hypaque sodium enema through fistula of transverse colon.

(fig. 4 center) and at four hours (fig. 4 right) revealed no evidence of intestinal obstruction.

Case 5. This 34-year-old patient at Homer G. Phillips Hospital developed a right subdiaphragmatic abscess as a complication of a ruptured duodenal ulcer. The patient showed signs of increasing toxicity in spite of what was considered adequate drainage. Serial survey radiographs of the abdomen revealed no change in the fluid level or appearance of the abscess cavity. Studies made following the injection of Hypaque Sodium solution revealed the abscess pocket being drained was not the pocket so easily seen on the x-ray film (fig. 5). This latter pocket was a large intrahepatic abscess which required additional major surgery for drainage.

Case 6. This 64-year-old female patient at St. Mary's Infirmary had had pelvic surgery for a benign tumor. Four weeks following surgery she developed a fecal fistula in the upper portion of the incision. Information was desired regarding the segment of bowel involved. Hypaque Sodium enema revealed the fistula communicating with the midtransverse colon (fig. 6).

SUMMARY

1. Hypaque Sodium Powder is a new water soluble powder which acts as an excellent contrast medium for gastrointestinal studies, injection into fistulous tracts and into body cavities.
2. It dissolves readily in water and can be made into any concentration.
3. It is nontoxic, nonirritating to peritoneal surfaces and has no undesirable side effects.
4. It can be used in most instances in which barium sulfate suspension can be used and in many instances in which the use of barium sulfate suspension is inadvisable or contraindicated.

The bitter taste can be satisfactorily disguised with flavored coated straws.

2601 N. Whittier St.

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SHOULD HEED OWN ADVICE

The tired physician at the end of a hard day now can console himself that he is not alone. Statistics do not lie.

"Too much work and not enough play" has become the occupational hazard of the doctors, a recent survey of doctor's health indicates.

The average physician is so busy taking care of others that he does not have time to take care of himself. Prepared by Parke, Davis & Company, *Patterns of Disease* surveyed more than 9,000 practicing physicians under 65 years of age engaged in private practice in the United States.

TAKE ON A HEAVY BURDEN

The physician undertakes a far heavier work load than the average person, "Patterns" reports. Half the physicians in this study reported a work week of 50 hours or longer—at least 20 per cent more than the accepted norm of 40 hours. In fact, 13 per cent work 60 to 64 hours and 6 per cent 80 hours or more!

The result is he has little leisure time. Close to 60 per cent of the physicians in the study stated they spend less than 10 hours a week on recreation. Even the physician with a hobby has virtually no opportunity to pursue it. Of the 37 per cent who mentioned hobbies, for instance, half stated that they spent only four hours a week or even less on their particular hobby.

Vacations, too, tend to be inadequate. One out of 20 physicians reported they took no time off for vacations during the year, and more than one in 10 took only a week or less.

Despite his crowded working schedule, the physician loses less time from work due to illness than the average man. Two-thirds of the doctors in the "Patterns" study reported no time lost from work last year. The remaining third reported an average time of 3.8 days lost due to illness as against 7.4 days of work-loss by the average American man.

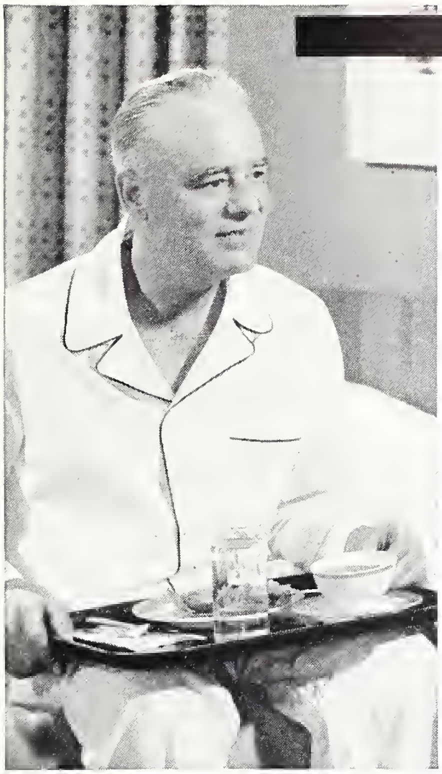
OCCUPATIONAL HAZARDS OF MEDICINE

In general, heart disease, sometimes called the doctor's disease, appears to be the leading mortality risk among U.S. physicians. Of causes of death reported among 2,700 physicians from July 1, 1957, to June 30, 1958, heart disease was the single or contributory cause of 50 per cent.

The highest death rates from coronary heart disease among physicians occur from ages of 60 to 64, according to "Patterns." In the under 45 age group, auto accidents ranked first as a contributory cause of death in the study, accounting for more than 40 per cent.

"PROFILE" OF AVERAGE PHYSICIAN

What's the average doctor like? From the results of its study, "Patterns" has assembled a composite "profile" of him. He is 44 years old, 5 feet 10 inches tall and weighs 173 pounds. He works 54 hours a week, plays seven hours, and takes two-and-a-half weeks' vacation a year. His health record, at least in terms of his working schedule, is a good one. He only lost a fraction of a day from work last year, and has had one illness in the last five years,



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Prematurity (Birth weight: 2 pounds, 4 ounces)—"Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

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Third Degree Burn—". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

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SEARLE

Case Reports

Ventricular Arrest

Treated With External Electrical Stimulation

MICHAEL BERNREITER, M.D., *Kansas City*

Stokes-Adams attacks occur during maintenance of complete AV heart block. Syncopal attacks, convulsions or epileptiform seizures are characteristic for this syndrome. During the seizure the electrocardiogram will record either ventricular tachycardia, ventricular fibrillation, standstill of the entire heart or ventricular standstill with maintenance of auricular activity. The following report places on record another case of complete heart block with many attacks of Stokes-Adams seizures as a result of ventricular standstill and its successful management by external electrical stimulation.

CASE REPORT

A 66 year old white woman was admitted to St. Mary's Hospital in August 1957 after she had repeated attacks of Stokes-Adam syndrome on the basis of a complete AV block. Electrocardiogram (fig. 1) obtained on the day of admittance showed an auricular rate of 120 and an idioventricular rhythm of 58; a complete AV block was present. Sympathicomimetic drugs were at first partially successful in controlling these Stokes-Adams attacks but soon became ineffective. Several hours after admission the patient's mental state started to deteriorate and her speech was slurred. Her pulse rate was 32 per minute. She became semicomatose and the cardiac pacemaker was applied. A rate of 60 electrical impulses per minute with an intensity of 60 volts was maintained for the next 36 hours. When during this period the pacemaker was temporarily turned off the ventricles immediately stood still, while the auricles continued to beat regularly at approximately a rate of 120 per minute (fig. 2). If electrical stimulation was discontinued too long, the patient became comatose and convulsions began to appear. Turning on the electrical pacemaker would immediately produce ventricular contraction and improvement in the patient's condition. At the end of 36 hours electrical stimulation was discontinued and at that time the ventricles continued to beat regularly, while the electrocardiogram showed a 2:1 AV block (fig. 2E). Thereafter the patient soon became ambulatory and symptom free. An electrocardiogram on the day of dismissal (fig. 2F) continued to show a 2:1 block. The patient continues to feel well at the time

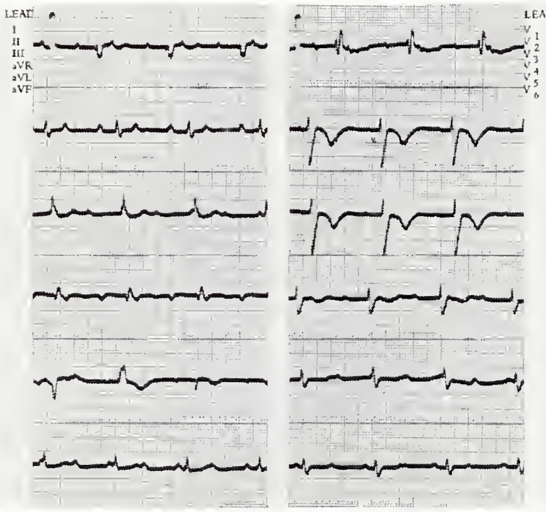

Fig. 1. This electrocardiogram was taken on the day of admission. A complete AV block is present and there is an idioventricular rhythm with a rate of approximately 58 per minute.

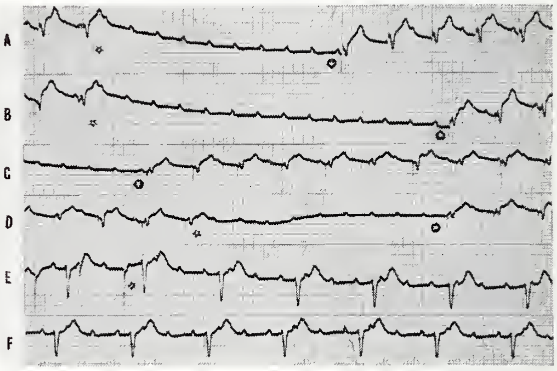

Fig. 2. All strips shown are Lead II.

A. Electrical stimulation was discontinued after the first two ventricular contractions (first star). No ventricular activity is apparent. The auricles continue to beat regularly. In the middle of the tracing (second star) the pacemaker is started and ventricular activity again becomes apparent.

B. Electrical stimulation is discontinued in the beginning of the strip (first star) and again started toward the end (second star).

C. Electrical pacemaker was in the Off position at the beginning of the strip and was turned on after the fifth auricular contraction (star). Note that no ventricular activity is apparent till electrical stimulation is started.

D. The situation is similar to A and B.

E. This strip of Lead II was taken approximately 36 hours after the electrical pacemaker was started. The pacemaker was turned off (see star) and the ventricles now continue to beat of their own accord. A 3:1 AV block exists.

F. This strip of Lead II was taken three weeks after E. The 3:1 AV block persists.

From the Department of Cardiology, St. Mary's Hospital, Kansas City, Missouri.

Cervical Pregnancy

D. B. ELROD, M.D., *Cape Girardeau*

CERVICAL PREGNANCY may be defined as an ectopic gestation in which the implantation and development of the fertilized ovum takes place in the cervix.

Implantation of the fertilized ovum in the mucosa of the cervical canal results in one of the rarest forms of ectopic pregnancy. Usually such pathologic implantations terminate by spontaneous abortion in from two to three months since the cervical canal is a relatively inefficient nidation site. The majority of cases reported have presented painless bleeding.

The most comprehensive reviews on this subject are those by Studdiford (1945) who found 28 cases of cervical pregnancies in world literature, and Baptisti (1953) who compiled those reported in the interim, bringing the world total to 45 cases. Since Baptisti's report, six additional case reports have appeared.[2, 5, 6, 7, 8, 9] These and a recent case[11] brings the total to 52. In 17 cases tabulated by Baptisti, three cases were supported by pathologic evidence. In four of the cases presented since,[5, 7, 8, 9] clinical diagnosis was confirmed by pathologic examination.

CLINICAL FEATURES

Placenta praevia as a cause of spontaneous rupture of the uterus is rare, but can happen. Rupture before term is exceedingly rare but also can happen. So in cervical pregnancy, rupture can happen. Ruben describes one such case with rupture of the cervix without external bleeding. Clinically the outcome of a cervical pregnancy would correspond to the fate of an extrauterine pregnancy. Either abortion or rupture is likely to take place. Fortunately, abortion is more common. Bleeding is generally severe and usually painless. Ergotrate or similar substances have little, if any, effect on bleeding, due to poor contractile qualities of the cervix.

The establishment of diagnosed cervical pregnancy demands, when possible, thorough anatomic and histologic examination to exclude a pregnancy in the isthmus of the uterus or an ordinary abortion from the uterus.

Nothing is definitely known of the etiologic factors which determine cervical implantation. Studdiford considers it possible for the fertilized ovum under influence "unknown but probably largely accidental" to transverse the uterine cavity during its period of maturation development (7 to 10 days) and implant in the cervix; or, as Suzuki puts it, the ovum is acted on by unknown factors which either delayed maturation or hurried it through the uterine cavity. Delayed fertilization has been suggested as a possible etiologic factor by Ellingron. Structural abnormalities may be an etiologic factor.

Ruben in 1911 formulated anatomic criteria which determine cervical pregnancy: (1) cervical glands must be opposite placental attachment; (2) attached placenta to cervix must be intact; (3) all

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Ventricular Arrest—Continued

of this report, approximately seven months after dismissal.

COMMENT

A 66 year old white patient with complete heart block and Stokes-Adams disease was kept alive during repeated periods of ventricular arrest by the application of external stimulation. Continuous stimulation was necessary for 36 hours and during this period ventricular standstill could be produced at will by disconnecting the pacemaker, while regular ventricular contractions could be maintained with the pacemaker in operation.

SUMMARY

The successful treatment with the electrical pacemaker of a case of complete AV block and severe attacks of Stokes-Adams attacks is reported. Cardiac arrest always presents a critical problem. Electrocardiographic diagnosis of the cardiac mechanism involved is important. The most common cause of Stokes-Adams syndrome is complete AV block and ventricular standstill. Under such conditions external electrical stimulation may be life saving.

432 Professional Bldg.

Acknowledgement: The author wishes to express his gratitude to Dr. Ernest Neighbor for his cooperation and the referral of this case.

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or portion of placenta must be situated either below the entrance of the uterine vessels or below the peritoneal reflection of the anterior and posterior surface of the uterus, and (4) fetus must not be present in corpus uteri.

CASE REPORT

Mrs. C., aged 29, was admitted as an emergency case to the Southeast Missouri Hospital at 8:00 p.m. on March 13, 1956. Chief complaint was flooding of four hours duration. In the last two hours, bleeding had been quite severe. The patient stated that she had passed large clots and soiled one box of napkins in the last two hours. Bleeding had been painless.

Past History.—The patient had been married for four years with no previous pregnancies. During the last three years she had tried to become pregnant without any apparent results. Her general health had been excellent until the present illness. She had had no previous surgery. Menses started at age 13, was regular every 28 days, lasting four days with no cramps. The last menstrual period, February 14, lasted only two days. Periods in December and January were normal. Three weeks later, the patient noticed a little spotting which lasted several days. Since that, the patient had not "felt well" but had had no pain or further bleeding until the present trouble.

Physical Examination.—White female, lying quietly in bed, showed no signs of shock even though she stated that she had been bleeding quite heavily for the last two hours. The skin was warm and moist. The pupils were round, equal, reacted to light and accommodation; the conjunctiva and mucous membrane were somewhat paler than normal. The nose and throat were normal. The lung fields were clear. Breath sounds were vesicular; no rales were heard in either lung field. Heart sounds were clear, regular and rapid; apex beat was 100; no murmurs were heard. Blood pressure was 100/60. Breasts were well developed with no apparent engorgement; no masses were palpable in either breast; there was no discharge from the nipples. The abdomen was flat with no palpable masses or areas of tenderness in any quadrant. The patient was surgically prepared and a sterile vaginal examination was done. The vagina admitted two fingers easily and it was filled with large clots. These were evacuated. The cervix was palpated gently. Tissue could be felt protruding from the cervical canal. This tissue had a moderately firm feel and the cervix could be well outlined. A definite cervical rim could be felt. This rim was somewhat firmer than one would normally expect. The tissue protruding from the cervical canal was about the size of a golf ball. Bleeding during the examination continued to be quite heavy. Immediate orders were given for emergency blood typing, blood counts and hemoglobin determination.

Laboratory report showed 3,590,000 red blood cells; 11,900 white blood cells; hemoglobin 78 per cent, 11.1 grams per cent. Blood type was B positive. There were 1 per cent stabs, 74 per cent segments, 21 per cent lymphocytes and 4 per cent mononuclear cells. She was given 1 cc. Ergotrate intramuscularly and operating assistants were called.

Approximately twenty minutes elapsed from the time of admission to transfer to the operating room at 8:25 p.m. During this interval the patient's blood pressure dropped to 80/50 and she began to show evidence of progressing shock. Ergotrate and uterine massage did not help to control the bleeding. Blood was started immediately, light anesthetic given and the patient prepared and draped for surgery. Large clots again filled the vagina. Exposure of the cervix revealed a "ball" of tissue presenting from the cervical canal and bleeding was coming from this area (fig. 1A).

From the first examination to the time of operation I felt we were dealing with an incomplete spontaneous abortion. The placental tissue was caught by sponge forceps and much to my surprise it would not separate. Digital examination revealed a firm mass adherent to the dilated cervix, with no opening into the intrauterine cavity. A uterine probe was then used without results. Bleeding continued heavy and the patient began to perspire freely. The extremities became cold and blood pressure dropped to 60/20. Five per cent glucose in saline solution was started as additional supportive treatment. By this time it was realized that this was no simple abortion. The cervical tissue was grasped again with sponge forceps and twisted out. This did not come loose easily but only after considerable pressure was applied. When it was freed, a hemispherical cavity approximately 2½ cm. deep was visualized with a heavy decidual membrane firmly adherent to the dilated cervical canal. At the base of this membrane was a small opening, barely visible due to the persistent bleeding (fig. 1B). The opening was enlarged and examining finger broke into the intrauterine cavity. The cervix was caught by three sponge forceps and for the first time bleeding was markedly reduced. By this time the patient was in shock. Further surgery was stopped and in about ten minutes the patient's condition showed marked improvement. Pulse volume improved, blood pressure showed a rise to 80/40.

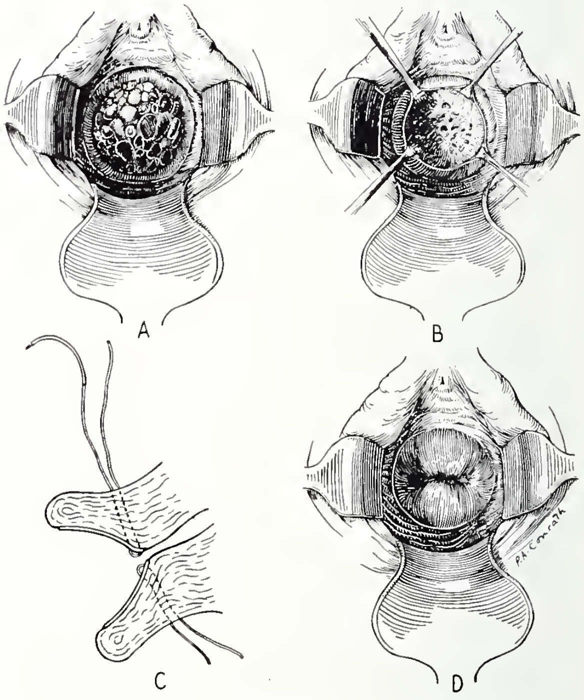

Fig. 1. Findings at the time of surgery.

Digital exploration of the intrauterine cavity was done but no gross placental tissue was removed. A light curettement was done. The uterus was 3 inches deep and smooth. Tissue, grossly like decidua tissue, was removed. Reexamination of the cervix then revealed a heavy decidua membrane. All but the outer edge (approximately ¼ inch) was firmly attached to the cervical canal. Sponge forceps were removed and bleeding immediately became heavy again. Gelfoam pack was inserted into cervix, reinforced with gauze pack. Within a few minutes the pack was soaked. At this point I decided to try mattress sutures rather than subject the patient to major surgery. The cervix was sutured with five mattress sutures at the level of the internal os (fig. 1C). Bleeding became progressively less as each suture was applied. Bleeding was completely controlled by mattress sutures and the patient was returned to her room at 9:05 p.m. An additional unit of blood was given. Blood pressure was normal by the time the patient had fully reacted from the anesthetic. Postoperative course was uneventful and she was discharged on the fourth postoperative day.

Cervical examination two weeks later showed a normal cervix, the uterus well involuted and no apparent damage from suturing (fig. 1D).

Pathologic Report.—The preoperative diagnosis was incomplete spontaneous abortion; the postoperative diagnosis, cervical pregnancy.

Gross Pathology.—Two specimens were submitted, labelled 1 and 2. No. 1 consists of irregular, ovoid blood clots, the surfaces of which are covered with glistening, grey-white tissue which has a spongelike consistency. No. 2, said to be from the uterine cavity, consists of irregular fragments of soft, spongelike, white tissue resembling placental tissue also. Representative sections of both of these are taken.

Microscopic Pathology.—First section labeled 1 revealed tissue composed of well formed, early chorionic villi showing some fibrosis and large masses of decidual tissue. Section 2, which apparently is from the uterine cavity, also reveals fragments of chorionic villi. Diagnosis on 1 was fragments of placenta and of 2, fragments of placenta.

Treatment in such a case with severe hemorrhage offers a serious problem. Should radical surgery be attempted or more conservative measures carried out? Burstein advises the following: Treatment must be prompt. Severe hemorrhage is the rule and at times most difficult to control. Blood in adequate amounts is of first importance to combat shock. Wherever possible, conservative treatment should be instituted. Hysterectomy is contraindicated in most cases, as many of these patients later become pregnant. Key to treatment is prompt control of bleeding by rapid replacement of fresh, whole blood. Burstein states that bleeding may be controlled by packing the cervix and vagina. However, I do not agree on this point. I do not trust packs as too often in the past, I have placed a vaginal, intracervical or intrauterine pack and think everything is under control, only to find in a few minutes a saturated pack and bleeding as heavy as ever with precious time lost. The only good I can see in packing is occasionally it might give the operator a few minutes to collect his wits. I believe by placing multiple mattress sutures at the level of the internal os, as in this case, bleeding can be controlled effectively and quickly. (Certainly it was the procedure of choice here, as this patient has now delivered full term female child without incident.)

SUMMARY

A case of cervical pregnancy has been presented, the diagnosis being made on clinical findings only. The pathologist reported: placental tissue which neither confirms nor disproves the clinical diagnosis. Conservative treatment should be instituted whenever possible, since normal pregnancies quite often follow. Suturing of the cervix (mattress sutures) is offered as a means of controlling hemorrhage (in some cases), and saves the patient more radical surgery. Sketches are presented showing findings at the time of surgery.

1912 Broadway

I am indebted to Philip A. Conrath of the St. Louis University School of Medicine for the excellent pen reproductions of this case.

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A.M.A. SCIENTIST AIDS PERU NUTRITION STUDY

Philip L. White, Sc.D., secretary of the American Medical Association Council on Foods and Nutrition, is in Peru, South America where he will serve as co-director of a survey team which will conduct a special medical-nutrition study of the Peruvian armed forces. The other codirector is Dr. Robert Shank, of the School of Medicine, Washington University, St. Louis.

The two went to Lima, Peru, to make the preliminary arrangements for the survey, which will take place between Feb. 15 and May 1, 1959. It is possible that segments of civilians will be studied as well as members of the armed forces.

The study is being sponsored by the U. S. Interdepartmental Committee on Nutrition for National Defense (National Institutes of Health) at the request of the Peruvian government. Similar studies have been conducted in 10 other countries.

Grand Rounds Medical Conference

Hemophilia

Saint Louis University School of Medicine

Dr. William Sykes: Today's case concerns a 43 year old white male known to have hemophilia. This was the first admission to Firmin Desloge Hospital for this man although he had been in this hospital on several occasions visiting his two hemophiliac brothers who had been hospitalized here.

He was admitted on October 2, 1957, for the evaluation of a swelling in the right half of the floor of his mouth. Approximately ten days prior to this admission he had what he thought was a viral infection manifested by cough, fever, myalgia and constipation. The cough, fever and myalgia remitted spontaneously, and the constipation was relieved by laxatives over a period of about four days. Five days prior to admission he developed the second episode of cough which he thought was related to smoking. He stopped smoking but the cough became progressively worse. Approximately three days before admission, during a violent paroxysm of coughing he noted for the first time the production of sputum which contained streaks of dark red blood. Following this he noted a persistent soreness and an increased swelling in the floor of the right side of his mouth and in the posterior aspect of his right oropharynx. The pain in this area progressed to the point that it hurt him even to breathe and to swallow, and he felt that this was definitely irritated by eating. He saw a physician who advised hospitalization. Because of previous contact with Doctor Broun, who cared for his brothers, he sought admission to this hospital.

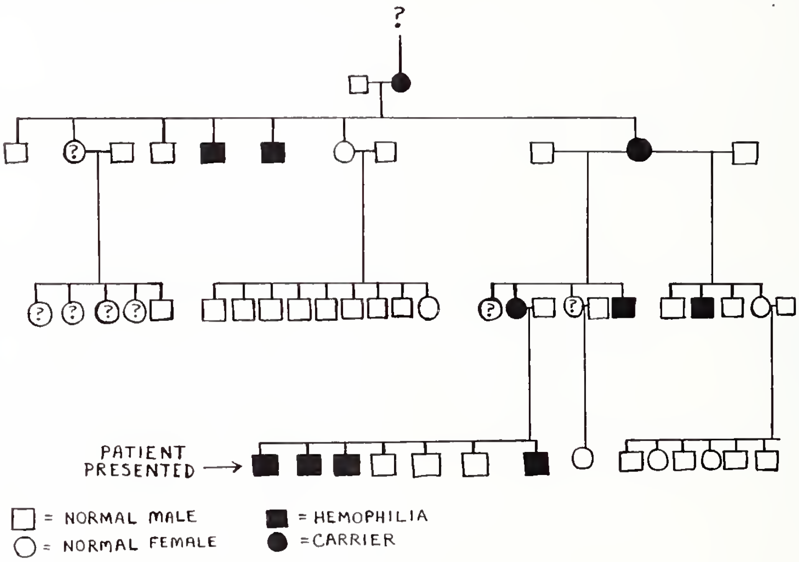

Figure 1. Family tree of patient presented.

The patient's past history is significant in the fact that his last hospitalization for hemophilia occurred at the age of 9 years. Although he is vague about that episode, he states that it had something to do with right lower quadrant pain which was not associated with trauma. He was told at that time that there had been a rupture of blood vessels in that area. He was treated in a small hospital in Illinois with ice packs for a period of about eight days without any important sequelae. Before that time he had not had any dangerous episodes of bleeding, nor has he had any since that time until the present admission. He has found that he is usually able to handle any episode of bleeding by himself. He has had a number of episodes of hemarthrosis associated with trauma. However, all of these episodes in the past have been successfully treated by him by ice packs and bed rest.

Figure 1 depicts his family history. The patient's

These conferences are conducted each Friday morning in Miller Hall, Firmin Desloge Hospital, and are participated in by members of the Medical Staff and the Basic Science Departments.

Recordings of these conferences are edited and abstracted by William A. Knight, M.D., and Joseph B. Vacca, M.D.

mother had seven sons, four of whom had hemophilia. This includes the patient we are presenting today, the patient's brother who died at Firmin Desloge Hospital at the age of 13 years and his brother who died here at the age of 18 years. The fourth affected sibling in this particular group also has hemophilia and is at present 23 years old. The patient's mother's brother also died of hemophilia. We are able to get the family tree back approximately four generations.

In reviewing the histories of the other brothers of this patient, it is of significance that the two brothers who died here entered the hospital with nasopharyngeal bleeding.

The patient's occupation was shoe repairing. He was an intelligent man and seemed to know a great deal about his disease. He accepted his disease well and judging by the paucity of admissions between the ages of 9 and 43, he obviously lived with his disease rather well. He tolerated such routine procedures as venipunctures and intravenous fluids without any apprehension whatever.

Physical examination on admission revealed positive findings only in reference to his skin, mouth, throat and joints. His vital signs were essentially normal except for a mild tachypnea. He was slightly pale. In the floor of his mouth, on the right side, there was an obvious hematoma which was not oozing at the time of examination, and which extended to the posterior aspect of the oropharynx. He also had ecchymoses on the medial aspect of the right wrist of which he was unaware, and which seemed to be causing him no difficulty at that time. He had deformity of the ankles and the knees without much limitation of motion.

The patient's clinical course, at first, was uneventful. Blood was drawn and permission was obtained from him for emergency tracheostomy if necessary. He was also given 200 cc. of fresh frozen plasma and put on bed rest and was quite comfortable. On the second hospital day the patient complained of an irritating cough which he related to excessive salivation, and which he felt was caused by continuous oozing of his hematoma. At that time there was no marked increase in the size of the hematoma; atropine was started to decrease salivation.

On the third hospital day it was noted that the hematoma was increasing in size and the patient was becoming increasingly embarrassed. He was changed at that time from a soft to a liquid diet and he was transfused again with whole blood and fresh frozen plasma. Through the cooperation of one of the medical fraternities, donors were obtained for small, daily transfusions of fresh blood.

In spite of the transfusions of fresh whole blood and fresh frozen plasma the hematoma continued to enlarge. It became apparent at this point that the patient might well require tracheostomy. It was felt by the staff that it would be better to do the tracheostomy under non-emergency conditions where all bleeders could be tied instead of a truly emergency tracheostomy where little time could be devoted to hemostasis. At this point, therefore, it was suggested to the patient that he have an "elective" tracheostomy. The patient stated that he understood the problem clearly but wished to defer surgery and continue on with his transfusions and wait out the hematoma.

The following day the patient was again told that it was the feeling of the medical and surgical staff that an elective tracheostomy would be best at this time; however, the patient said that he undersood the situation but had decided he would rather wait and hope for resorption of the hematoma. During the subsequent 36 hours someone was in constant attendance with this man. The tracheostomy equipment was in his room at all times. The surgical department was alerted as to the possibility of an emergency tracheostomy. During this period, however, there was no increase in the size of the hematoma and it subsequently began to decrease in size. He was given hypertonic saline mouthwash to help reduce the size of the hematoma. Much to the relief of the staff and the patient, the hematoma subsided within several days. He was discharged approximately ten days after admission to the hospital.

DR. WILLIAM A. KNIGHT, JR.: Obviously, the patient's surgical judgment was better than ours. This does not happen often, but it does happen. Dr. Mueller, will you show the films?

DR. W. K. MUELLER: These are films made of this man's larynx and pharynx. They demonstrate nicely the marked swelling, not only of the floor of the mouth, but also of the pharyngeal region. The pharynx was markedly displaced towards the left, indicating that he has a retropharyngeal hematoma in this approximate region. One can see a good deal of soft tissue swelling in all areas near this particular location. However, the larynx itself is not displaced, nor is the trachea.

X-rays of his bones and joints show changes which are consistent with the diagnosis of hemophilia. The right elbow shows changes that are consistent with hemophilia, while the left elbow is relatively normal. The right elbow shows changes in the architecture of the bone and joint and thinning of the cartilage. I might point out also that there is nothing diagnostic as to hemophilia about these films. These changes are also consistent with trauma of any sort. However, in a 43 year old man this is probably highly suggestive of hemophilia in the absence of a pretty definite history of rather severe trauma to several joints. Similar changes are also noted in the knee joints. These joints show a rather unusual amount of change for a 43 year old man. They are the sort of joint changes that one would expect to see in a 70 to 75 year old man; however, in a 43 year old man they are highly suggestive, in the absence of trauma, of hemophilia.

Dr. Wilbert J. Henke: Hemophilia is an interesting disease especially from its historic standpoint. This disease has been known for a long time and actually the first reference probably made to it is in the second century A.D. In the Babylonian Talmud there is reference made to a family in which there were four sisters, three of whom had lost their sons during the rite of circumcision. For this reason a certain Rabbi named Simon Ben Gamaliel ordered that another son should not be circumcised.

Following this there is a rather marked blank in literature in reference to this bleeding tendency until the beginning of the twelfth century when Albucasis of Cordova, a Moorish surgeon, reported on a certain town where many of the men suffered from uncontrollable hemorrhage from minor wounds and young boys were noted to be bleeding to death from simply brushing their teeth or massaging their gums. Following this there are only isolated reports of cases and families up until the end of the 18th century. It is in the early 19th century that some of the most important discoveries about this disease were made. At that time John C. Otto of Philadelphia published a classic monograph on a family in which all of the males had a bleeding tendency. He, in this monograph, made the statement that only males are affected by this disease and females are not affected by the disease although they are capable of transmitting it to their sons. It is also interesting that this man was the first to apply the term "bleeders" to patients with this condition.

Within the succeeding ten years there were several other family reports in the colonies. There was still little on this in European literature; however, the work in this country stimulated interest on the continent, and in 1820 Dr. C. F. Nasse, Professor of Medicine at Bohn, collected and compiled a group of cases and formulated the method of transmission which still bears his name.

In the first half of the 19th century Shonlein gave the name "hemophilia" to this disease. It is quite interesting that not until 1897 was it first noted that these people suffered from a prolongation of coagulation time.

Within the first decade of the 20th century Sahli and Morawitz (Morawitz being one of the first people to formulate a theory of the coagulation of blood) suggested the lack of a factor which they called "thrombokinase" as the cause of the bleeding tendency in these patients. It is the same theory that is utilized today to explain this disease except for the fact that a different term, anti-hemophiliac globulin, is used to specify the absent factor. Other excellent monographs on hemophilia have appeared by authors such as Addis, Schloessmann, and an excellent one by Howell.

In 1936 things began to change. It was at this time that Patek and his group did so much of their basic work which led them almost immediately to the discovery of the anti-hemophiliac globulins. In 1939 Owren and his group, as well as certain Scandinavian investigators, reported on a coagulation globulin, as yet not given a particular name. At this time Doctor Brinkhous at the University of Iowa, and Doctor Howell found this substance, quite similar to the substance originally proposed by Morawitz almost 40 years previously. From 1939 on it seems that Pandora's Box was opened and many other discoveries were made. In 1940 the anti-hemophiliac factor was discovered. From that time till the present a great number of blood coagulation factors have been discovered. In 1947 Owren and Quick, as well as several other investigators, discovered factor 5. In 1949 Alexander and his group discovered factor 7. In 1952 Aggeler and associates reported for the first time PTC deficiency or Christmas Factor deficiency responsible for Christmas disease. In 1953 Rosenthal and associates reported on PTA deficiency. In 1954 Aggeler and his group reported on a new factor called the "fourth thromboplastin factor." Since that time Biggs and McDonald have reported on the so-called factor 10 and Ratnoff has reported on the Hageman factor.

Genetically, hemophilia is a sex-linked Mendelian recessive; it is linked to the female genes and is transmitted by the female as a recessive and manifested in her male offspring. For example, a hemophiliac male marries a normal female; the male, of course, cannot transmit this disease to his own son and as a result this union will produce normal sons and carrier females. In the next example a normal male married to a carrier female will result in the production of a normal son, a hemophiliac son, a normal daughter, and a carrier daughter. If it were to happen that a hemophiliac male were to marry a carrier female (this however has never been definitely reported in the medical literature though in certain animal experiments it has been demonstrated), a hemophiliac daughter could be produced. Certainly Brinkhous and his associates, working with a colony of Irish setters with hemophilia, have greatly aided understanding of the biogenetics of this disease.

The disease hemophilia is quite rare. About one in 10,000 live male births will produce the disease. The recognition of manifestations of this disease is usually within the first two years of life but may be delayed until as late as 5 years of age. Infantile bleeding is stated to be quite rare. It is uncommon for the bleeding of this disease to have its first manifestation after the age of 5 although one case is reported in which the first bleeding manifestation occurred at the age of 26.

Regarding the clinical manifestations of the disease, the major one, of course, is bleeding excessively from a relatively minor trauma. This bleeding takes place particularly in the subcutaneous tissues, the nasopharynx, in joints, and along fascial planes. About one third will have gastrointestinal bleeding at some time. A considerable number will also develop retroperitoneal hemorrhage at some point which may have been the situation causing the earlier hospitalization of our patient today. Purpura, as such, is rare. Pulmonary and pleural hemorrhage have been recorded but are extremely rare as are central nervous system and spinal cord bleeding. Hematuria is stated to occur in about one half of the cases at some time.

Hemarthrosis is probably the most common manifestation of hemophilia. This complication has been divided into three stages by Koenig; the first stage is that of active bleeding into a joint, the second being a pararthritis secondary to the reaction to the bleeding into the joints, and the third stage being the fibrous stage or the stage of ankylosis. In Bertram's series of more than 100 cases of hemophilia, 83 gave a history of hemarthrosis, and 66 had permanent joint deformities. The ankle is usually the first joint affected; the knee is usually also permanently deformed. With special reference to this patient and his bleeding into the nasal pharyngeal region, Davidson in his report of 40 cases of hemophilia noted only one such occurrence. However, Barrett and Fox reported on eight cases in the pediatric literature who had bleeding into this area. Of these eight cases, four were treated medically and four were treated surgically. Three of the four treated surgically died, whereas all of the four cases treated medically survived.

In regard to prognosis in hemophilia, 75 per cent of cases die before the age of 20 years. It should be pointed out, however, that these statistics are drawn from older series and were collected and reported before modern therapy with substitution of antihemophiliac factor was available and therefore should be regarded in that light. It is also stated that only about one half of all hemophiliac patients have such a severe deficiency of antihemophiliac globulin as to produce a marked bleeding tendency. This is probably the reason for some patients surviving past the age of 20 years as did our patient today. Almost all patients surviving past the age of 20 years do have permanent joint deformities.

What are the causes of death? In Bircher's series of 113 cases, 25 died of surgery of various types. Of these, 15 were after circumcisions, six were from dental extractions, and the rest were from extremely minor procedures. Other causes of death from bleeding were related to accidental cuts and internal hemorrhoids, both of which accounted for a number equal to that caused by surgery. Less frequent causes included epistaxis, hematuria, bleeding from the umbilical cord and gastrointestinal bleeding, as well as cerebral hemorrhage.

DR. KNIGHT: Doctor King, would you review briefly the clotting mechanism with particular emphasis upon hemophilia and the way in which one can differentiate hemophilia from the hemophilia-like states?

DR. JAMES P. KING: This will be a rather difficult subject to cover in any completeness in this period of time but we will attempt to review briefly some of the more important aspects of blood coagulation.

It might be well to run through briefly the normal coagulation cycle and the usefulness of some of the tests available in diagnosing and differentiating some of the various bleeding disorders. First of all, as Dr. Henke intimated, the defect in coagulation in hemophilia and in many other coagulation disorders varies greatly from time to time in the same individual and can vary markedly in different individuals. Therefore, if one clinically suspects a bleeding disorder it is necessary to thoroughly investigate the individual. The clinical history and the clinical background of the individual is much more important in leading this patient into a diagnostic study than any single diagnostic test.

Classically the normal coagulation cycle has been divided into these three phases (fig. 2). The first phase results in the formation of thromboplastin; necessary for this are platelets, calcium, and the thromboplastin precursors. The thromboplastin precursors which are definitely known are AHG, PTC and PTA, which are anti-hemophiliac globulin, plasma thromboplastin component, and plasma

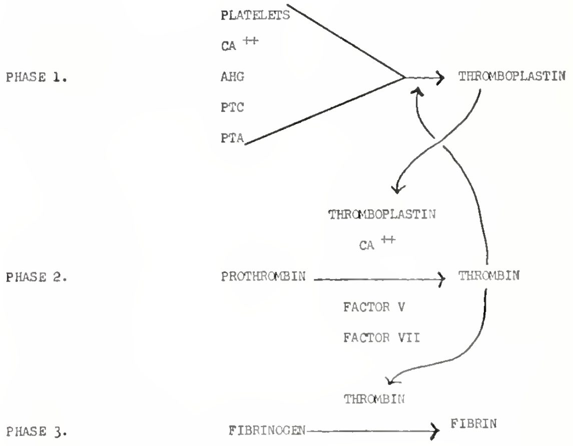

Figure 2. Schematic Representation of Clotting Mechanism.

thromboplastin antecedent. The other factors that Dr. Henke mentioned, such as the factor 10 and the factor 4, are much less important and these will not be discussed further. The Hageman factor is apparently a factor which is important only in the laboratory. It is a defect in the patient's blood which prevents his blood from clotting on contact with glass and yet clinically produced no bleeding disorder. Therefore, the individual with the Hageman defect can undergo quite radical surgery with no apparent bleeding difficulty, and yet in the laboratory his blood has abnormal characteristics. The importance of factor 5 as a thromboplastin precursor is not as yet known. As you know, this whole coagulation cycle is as yet still theoretic and serves merely as a practical working basis.

The second phase results in the formation of thrombin; necessary for this is the thromboplastin produced in the first phase, calcium, the labile factor or factor 5, and the stable factor or factor 7. When these are added to prothrombin, thrombin is produced. Thrombin and fibrinogen are necessary for the third phase and results in the production of fibrin.

There are other factors that enter in. Once thrombin has been produced it goes back and accelerates thromboplastin generation. It takes quite a while for thromboplastin to be generated. It takes three to four minutes. Once some thrombin is generated it goes back and accelerates this process and thromboplastin is then formed in a matter of seconds. Also there are anticoagulants which again we will not discuss today.

CLOTTING DISTURBANCES IN REFERENCE TO 3 PHASES OF BLOOD CLOTTING.

- Phase 1 Disturbances
  - AHG Deficiency
    - Classic Hemophilia
    - "Mild Hemophilia"
    - Vascular Hemophilia
  - PTC Deficiency ("Christmas Disease," Hemophilia B)
  - PTA Deficiency (Hemophilia C)
- Phase 2 Disturbances
  - Hypoprothrombinemia
  - Factor V Deficiency (Parahemophilia)
  - Factor VII Deficiency
- Phase 3 Disturbances
  - Fibrinogen Deficiencies
    - Congenital
    - Acquired
    - Fibrinolysins

Table 1 demonstrates briefly the major clotting disturbances that occur in reference to the three phases of coagulation that were mentioned previously. The first is anti-hemophiliac globulin deficiency. The syndromes that have been associated with this deficiency are: classic hemophilia; to emphasize the variations that occur in anti-hemophiliac globulin deficiency we have included "mild hemophilia"; the vascular hemophilia is a combination of von Willebrand's disease, which is a vascular anomaly, plus an AHG deficiency. Plasma thromboplastin component (Christmas factor) deficiency, causes Christmas disease or hemophilia B. Plasma thromboplastin antecedent deficiency causes hemophilia C. The second phase deficiencies are of prothrombin and factors 5 and 7. In the third phase the major conditions are fibrinogen deficiencies which include congenital hypofibrinogenemia hypo- or afibrinogenemia associated with abnormal obstetrics situations, and the presence of fibrinolysins.

The first phase of the coagulation scheme takes from two to five minutes for completion. In other words, it takes about two to five minutes for thromboplastin to be formed. Once this has occurred the rest of the clotting process occurs in a few seconds. If tissue thromboplastin is added, as it is in the laboratory when doing a one-stage prothrombin time determination, then this early, time-consuming phase is eliminated. As a result, a clot is formed in from 12 to 15 seconds (normal prothrombin time values) whereas the normal clotting time is several minutes.

Clotting time roughly measures the entire process. The most important and time-consuming part of the clotting time is that time required for the production of thromboplastin. Therefore, the test is basically a measure of thromboplastin production and, thus, the clotting time is classically prolonged in hemophilia.

The prothrombin consumption time and the thromboplastin generation test, of which we will speak later, measure phase 1 of the clotting cycle. The one stage prothrombin time, Quick's method, in which one adds tissue thromboplastin, measures the second and third stages.

Therefore, in summary, the clotting time measures the time from contact of blood with a foreign surface to the production of fibrin. As mentioned previously it principally measures the formation of thromboplastin and, as part of this, it only requires small amounts of prothrombin, fibrinogen and platelets to give a coagulation time within a normal range.

To do a one-stage prothrombin time determination one adds tissue thromboplastin and calcium to oxalated plasma; therefore, one is really measuring the second and third stages of the cycle. Therefore, a one-stage prothrombin time will measure a deficiency of factor 5, of factor 7, of prothrombin, or of fibrinogen. If any of these are absent one will get an abnormal one-stage prothrombin test. By contrast, a deficiency of anything that is necessary for thromboplastin formation will not produce an abnormality of the one-stage prothrombin test and, therefore, classically in hemophilia the one-stage prothrombin time is normal. Therefore, there is a long clotting time and a normal one-stage prothrombin time.

In many laboratories in which they are dealing mainly with adults, the prothrombin consumption test is not done and instead a silicone tube clotting time test is used. If this clotting time in a silicone tube is prolonged, then they proceed to do this test. For an accurate silicone tube test, it is necessary that one has a clean venipuncture with the blood dropping freely into a tube. In a 6 month old infant this is usually extremely difficult to do and, as a result, we are forced to use prothrombin consumption time to study the difficulties in clotting.

In normal coagulation almost all the prothrombin present is consumed within an hour in the formation of the clot. In order to measure whether prothrombin is consumed, one takes blood and does an ordinary one-stage prothrombin time test; then one allows blood to clot and to incubate for an hour in order to use up all the prothrombin that is present. If all the normal factors are present and there is normal thromboplastin generation, then most of the prothrombin will be used up in the clotting process in one hour. If then one tries to make this serum clot by adding thromboplastin, calcium and fibrinogen, it will take a long time for it to clot because there is no prothrombin left.

If, on the other hand, all the factors necessary for thromboplastin formation were not present in the original specimen, the normal amount of prothrombin will not be consumed in the original clot and the clotting of the plasma will take a shorter period of time in the second tube. A prothrombin consumption time is measured or expressed as the plasma prothrombin time (which is normally short) over the serum prothrombin time (which is normally long) times 100 and this is expressed in per cent. The normal value should be quite low. If there is an abnormality of thromboplastin formation, the plasma and serum prothrombin time are close to being equal and the percentage will be up around 100 per cent or even higher.

The test that is important in the differentiation of the various hemophiliac-like states from hemophilia is the thromboplastin generation test. In order to understand this test it is necessary to understand what is present in the various substances used in the performance of these tests (table 2). Plasma normally has the factors necessary for all three phases of blood coagulation (except in the laboratory when an anticoagulant such as oxalate is used to remove calcium). Serum normally has PTA, PTC and factor 7; AHG disappears in clotting, as does labile factor 5 and fibrinogen, obviously because it is utilized in making fibrin in the clot. Normal serum, therefore, should contain all the necessary factors except these three. If one then takes aluminum hydroxide and absorbs the plasma of a patient that is normal one will remove PTC, factor 7, and prothrombin; remaining in the plasma will be AHG, PTA and factor 5. Thus, AHG is present in normal plasma absorbed by aluminum hydroxide, PTC is present in normal serum, and PTA is present in both.

CONSTITUENTS OF VARIOUS SUBSTANCES USED IN THROMBOPLASTIN GENERATION TEST.

	Normal Plasma	Normal Serum	Normal Plasma AL (OH)^3 Absorbed by
Platelet Factor	+	+	+
CA	+*	+	+
AHG	+	—	+
PTC	+	+	—
PTA	+	+	+
Prothrombin	+	decreased	—
Factor V	+	—	+
Factor VII	+	+	—
Fibrinogen	+	—	+

*In laboratory is removed by oxalate, etc.

The thromboplastin generation test specifically measures the presence or absence of the platelet factor, AHG, PTC, PTA, and anticoagulants of the antithromboplastin type (table 3). With this test one measures, at one minute intervals, the development of thromboplastin in mixtures of the patient's serum added to normal aluminum hydroxide absorbed plasma and of normal serum and the patient's aluminum hydroxide absorbed plasma in the presence of an excess of platelets and calcium. The generation of thromboplastin is judged by the time required to develop a clot when these mixtures are added to a substrate containing all the necessary factors for phases 2 and 3 of blood coagulation except thromboplastin.

DIFFERENTIATION OF VARIOUS HEMOPHILIAC-TYPE DISORDERS BY THROMBOPLASTIN GENERATION TEST.

	Thromboplastin Generation	
	NORMAL SERUM + PATIENT'S ABSORBED PLASMA	PATIENT'S SERUM + NORMAL ABSORBED PLASMA
AHG Deficiency	Delayed	Normal
PTC Deficiency	Normal	Delayed
PTA Deficiency	Normal	Normal

Now let's look at this patient's results. His clotting time, which we do by the 3 tube method in an incubator, ran 29, 26 and 26 minutes. The upper limit of normal is 12 minutes; he has, therefore, a prolonged clotting time. He has a normal one-stage prothrombin time. His prothrombin time in plasma was 13 seconds and in the serum 14 seconds; this gives a value of 93 per cent. The normal is below 40 per cent. In the thromboplastin generation test, a mixture of normal aluminum hydroxide absorbed plasma (which contains AHG and PTA) and the patient's serum (which should have PTC) generated thromboplastin normally. A mixture of the patient's absorbed plasma (which should have AHG and PTA in it) and normal serum had quite abnormal generation of thromboplastin.

One of the ways of ruling out a circulating anticoagulant is to note the amount of normal plasma necessary to correct the coagulation defect. It takes only a small amount of normal plasma to correct a hemophiliac whereas large amounts are necessary to neutralize a circulating anticoagulant. In this patient with a mixture of 1/10 normal and 9/10 patient the tests come down to a normal range; this would seem to rule out the presence of a circulating anticoagulant.

This patient's platelet count and fibrinogen level were normal; his clot retraction was complete within 24 hours.

I will be happy to answer any questions if I can.

Question: What is pseudohemophilia and what is parahemophilia?

Dr. King: Pseudohemophilia is von Willebrand's disease, which is primarily a vascular disease. In it there also occurs a prolonged bleeding time and it was originally thought to be purely a vascular problem. If one looks at the capillary loops under a microscope it can be seen that they are abnormal. Recently cases of von Willebrand's disease associated with a deficiency of AHG have been reported and labeled "vascular hemophilia."

Parahemophilia is a deficiency of the labile factor, factor 5, also called Owren's disease.

Dr. Knight: Blood clotting mechanisms always remained a mystery to me and were difficult to understand until I sat down one day and learned all the names of the various factors and their synonyms. This has helped me considerably whenever I read about some new aspect of the clotting mechanism. I am happy also to see, Dr. King, that you are using a "blood clotting profile" in your study of bleeding disorders. I think that this is necessary for one to understand what is going on in an abnormal process as complex as that of blood coagulation. As Dr. King has pointed out there are also circulating anticoagulants which he has not gone into at this time.

Dr. King: I would like to point out again that this whole blood clotting mechanism that we have described so simply on slides today is still just a theory and to emphasize this I might mention that, for instance, Tocantins feels that hemophilia is not a deficiency of AHG but is rather due to the presence of an anti-AHG, and no one has been able to disprove him.

Dr. Knight: Dr. Broun, I would like to ask you to discuss the treatment used in this patient and the treatment of hemophilia in general. I would like also to ask whether a stab wound drain of the hematoma itself would not have been a better approach than a tracheostomy. Can these hematomas be drained safely?

Dr. G. O. Broun, Sr.: These are good questions. I am sure I do not know the answer to them. Why is it that one can so readily puncture the vein of these people without any difficulty? Perhaps the fact that one can do this in most patients with hemophilia would suggest that possible drainage of the hematoma could be successfully done. I do not know.

I do not think there is any question but that this patient's decision not to have a tracheostomy done was the right one. The advice that we all gave him was probably bad and might have resulted in a fatality. Yet, as Dr. Hanlon pointed out, if this hematoma had completely occluded his respiratory passages, as it nearly did, there would have been no question about the necessity of a tracheostomy. It was our feeling that it would have been better to have been done slowly and with care and caution than to be done as an emergency procedure.

I did see the other two boys in this family when I came back to St. Louis in 1924. I saw the first boy shortly after I returned. He was about 12 years old at that time and was the one that I believe died at about the age of 18 years. As I recall, one of these two brothers died of something such as this man had today, a nasopharyngeal hematoma. It seems to me that the other one died of a retroperitoneal hematoma which developed after he had jumped from a chair onto the floor; the trauma of this jumping had apparently started the retroperitoneal bleeding. The hematoma filled his entire abdominal cavity before he died in spite of the transfusions and therapy that we gave him.

I think the most important thing to remember in hemophilia is that they bleed at the site of trauma. How about the joint situation? Every time a person walks there is a certain amount of trauma with each step so that bleeding into the ankles, the knees and the hip joints in hemophiliac patients is really traumatic bleeding. We do not always know what the trauma is.

As far as treatment is concerned I can go way back on that. There is one treatment that we used many years ago that is no longer used and has no place in present management. This was a treatment based on the report that patients with hemophilia could be helped by injections of small amounts of sodium citrate intravenously. Now this sounds strange since sodium citrate is used to prevent blood from clotting; however, it is also true that if one takes varying concentrations of sodium citrate and mixes it with blood there is a concentration of sodium citrate which tends to hasten clotting. The idea behind this therapy apparently was the fact that if one were lucky enough to hit this concentration just right one might help the bleeding abnormality of hemophilia.

The next form of therapy that was used was the use of whole blood transfusions from a patient who was not a hemophiliac. Next was developed a more purified blood product which contained a concentrated form of anti-hemophiliac globulin.

If one has enough of this anti-hemophiliac globulin available, this would be the desirable way to treat hemophiliac patients. The whole blood is usually more readily available and, therefore, it is more often used.

As to local measures in the bleeding area, there are a number of things that have been tried. Thrombin in a concentrated form applied locally would seem to have some rationale but in practice has little effect. However, it is one of the things that can be tried.

There was an interesting case presented at one of the hematology meetings in New York a number of years ago by a group from the Mayo Clinic in which they raise the question of the possibility of the presence of an acquired type of hemophilia. The patients that they presented was a man in his forties whom they felt, by their studies, had hemophilia. However, as a young man this man had lived in the wild west and had been involved in several cutting incidents and had been shot several times, never with any bleeding problems. However, at the age of about 40 he developed a bleeding tendency and by their studies was thought to have hemophilia. Now, since there have been many new factors isolated since that time, one wonders if this patient had a true hemophilia; however, the question still remains in my mind as to the possibility of someone having an acquired type of anti-hemophiliac globulin deficiency.

DR. KING: I would like to ask Dr. Broun if he had any experience with the local use of hyaluronidase in hemophiliac bleeding.

DR. BROUN: No, I have not had any experience with that.

DR. KING: I have only seen one case in which it was used. Dr. Lahey, however, was telling me yesterday that they had been using it locally in hemophiliac bleeding sites and have had some good results with it.

DR. HENKE: I would like to ask Dr. King if he has ever observed anyone to develop antibodies to the anti-hemophiliac globulin who has been treated with this substance over a long period of time.

DR. KING: I have not personally seen any cases develop this, but it was apparently seen to rather severe degrees when the use of Cohn's faction 1 was being used in the treatment of hemophilia. Cohn's faction 1 is a fibrinogen factor which has AHG in it. During the war this substance became available and was used in the treatment of hemophilia and apparently many patients rapidly developed antibodies against the AHG. It is not clear whether they developed the antibodies against the AHG itself or something else in the faction. It has also been noted by people who have followed cases of hemophilia for long periods of time that even blood transfusions over long periods of time become less and less effective. Whether this is due to a circulating anticoagulant or the development of antibodies to the AHG is not clear.

DR. BROUN: I do believe that these people become less sensitive to blood transfusions after they have been given to a patient over a long period of time, but I have no information as to why this occurs.

DR. HENKE: Is there not an extremely high incidence of serum hepatitis associated with the use of pooled anti-hemophiliac globulin?

DR. BROUN: That is one of the blood factions that is certainly not safe to use as regards the development of serum hepatitis.

DR. KNIGHT: Fibrinogen seems to be the factor that is associated with extremely high incidence of transmission of serum hepatitis. I am not quite sure about the incidence with AHG factions. Would you comment on this, Dr. Vacca?

DR. JOSEPH VACCA: We have a patient in the hospital at the present time who has hepatitis who had received fibrinogen approximately two months ago for a transient hypofibrinogenemia associated with placenta previa. She received some whole blood at that time also. We have tried to find information in the literature about the incidence of hepatitis following the use of fibrinogen and other plasma factions and have found one article that ascribes an incidence of serum hepatitis up to approximately 40 per cent following the use of fibrinogen. I have not seen any data giving the incidence of serum hepatitis following the use of AHG factions, however.

DR. HENKE: I think another point that should be emphasized is that in the process of clotting AHG is constantly being consumed in contrast to PTA and PTC. For this reason if patients with hemophilia start to bleed or continue to bleed from any cause, they are continually exaggerating their own deficiency. This patient presented today may well represent a relatively minor deficiency of AHG. However, after the bleeding had once started, a somewhat more difficult clotting disturbance was initiated in a vicious cycle and was much more difficult to arrest. This probably represents a good reason why one should be vigorous with his therapy early in the course of such a situation.

DR. KING: That is the rationale for the use of relatively massive amounts of blood early in the course of bleeding in a hemophiliac.

QUESTION: How much blood or plasma do you use in the treatment of hemophilia?

DR. KING: You can actually calculate it on a blood volume basis. If you assume that there is zero amount of anti-hemophiliac globulin present and you would like to bring it up to approximately 20 per cent of normal values.

QUESTION: How much would that take?

DR. KING: I am used to thinking in terms of relatively small blood volumes. It takes about 400 or 500 cc. per day in a small child.

President's Page

Providing medical care for the aged, especially the ones who can't pay, is one of the most critical problems facing us today.

Seemingly every large health group is busy studying the problem and compiling statistics on the best way to solve the problem. This is good! But will they have time? We know that many lawmakers are pushing to get the federal government into the act and provide free medical care for the old folks.

Next spring the Joint Council for the Health Care of the Aged plans to hold a national conference on the problem. The Joint Council, as you will recall, was formed last spring by the AMA, the American Hospital Association, American Dental Association and American Nursing Home Association.

Its objectives are to (1) identify and analyze the health needs of the aged, (2) appraise available health resources for the aged, (3) develop programs to foster the best possible health care for the aged, (4) foster effective methods of payment for the health care of the aged and (5) foster health education programs of the aged.

One of the first jobs of the Joint Council was to help explain to the last Congress the pitfalls in many of the health bills. With another session starting next month, this promises to be a continuing job because many of the defeated bills will be back again.

The spring meeting of the Joint Council will provide a good time for its component groups to assess just what they have accomplished. The minutes of the last meeting of the MSMA Council, carried in this issue, give a report on the recent AMA meeting on the problems of aging.

Dr. Gunnar Gundersen, President of AMA, recently summed up several of the AMA's ideas when he called for an aggressive effort "to seek voluntary programs to solve the health care of the aged within their pocketbook capacity."

"Improved voluntary health insurance programs are one answer," he said at the annual meeting of the Association of Life Insurance Medical Directors.

He also said he felt individual physicians could help lower health insurance costs by taking the following steps: Doctors should guard against the abuses of over-prescription, over-utilization of hospitals and over-charging simply because the patient happens to have insurance protection.

EDITORIALS

Doctor Is Survival Plan Key

Missouri physicians have a vital role in the revised state survival plan designed for use in the event of enemy attack. To the doctors is handed the mission of providing medical care of the sick and injured.

Just what the working conditions would be following an attack—probably atomic—are hard to imagine. Hard because it seems inconceivable it could happen here.

The public, understandably, lacks interest in such survival plans. It disturbs them (like it does physicians) to think of such things. Defense against atomic attack also, on first thought, seems rather hopeless.

But without some plan of action, it would be hopeless.

Missouri's survival plan is extremely thorough and detailed. As one newspaper account said: "Weighing in at 5 pounds 13 ounces, the big book was months in preparation by state civil defense officials with the help of other state agencies."

STATE CAPITAL WOULD MOVE

The manual sets out plans for evacuating the target areas and moving the seat of the state government from Jefferson City to Rolla.

Target areas considered most likely to be attacked are St. Louis, Kansas City, Springfield, St. Joseph, Jefferson City and Whiteman Air Force Base near Knob Noster.

These target areas also contain the majority of the physicians in Missouri.

Appendix 2 "Medical Care" to Annex O "Emergency Health-Medical Service" states: "Medical care requirements within target areas will be reduced to the extent that successful evacuation is accomplished. It is further assumed that a successful enemy attack may destroy or render unusuable medical facilities within the target area. The extent to which health operations can be performed will depend upon prevailing radiation levels."

MSMA WILL CHOOSE DIRECTOR

The chief of these Medical Care Services will be named by the Missouri State Medical Association, according to the survival plan. The chief will be assisted by a deputy, a hospital administrator and a nurse, all to be appointed by MSMA.

There naturally will be district chiefs of Medical Care Services, plus their staffs. They will work under the direction and coordination of the state district health officer, just as the chief will work with and at the direction of, the director of the state health division.

The mobilization plan thus spells out definite lines of authority that have been rather fuzzy before in other disaster plans.

"Civil defense can no longer be solely dependent upon the volunteer effort of our citizens," Gov. James T. Blair said. "The state plan now provides for maximum utilization of public officials, employees, equipment and facilities."

For state and local agencies, he said, the next job is to complete details within the framework of the survival plan and train personnel to make the plans operational.

A DECISION FROM WASHINGTON

The establishment of specific lines of authority in the event of an attack is no arbitrary decision of the state. It follows instructions and directives from the U. S. Office of Civil and Defense Mobilization. The cost of preparing the survival plan for Missouri was borne by federal funds. Forrest Smith, former governor, was project manager and Col. Russell Boyt of Cape Girardeau was the chief planner.

The medical care section was prepared by the late Dr. E. Royse Bohrer, Jefferson City. Dr. Bohrer was secretary of MSMA at the time of his death last spring and was working as a consultant to the State Health Division. Dr. William C. Allen, Glasgow, former chairman of the MSMA Civil Defense Committee, also was extremely generous with his time during the preparation of this section.

Dr. Carl D. Siegel, Sedalia, the present chairman of the committee, has been active in civil defense affairs for years. He has attended numerous courses and meetings on civil defense and disaster planning.

FAMILIAR WITH THE PROBLEM

Dr. Siegel, president of the Pettis County Medical Society, has drawn up a working guide for a county medical health plan.

Writing in his society's bulletin at that time, he said, the time has come to "look at the naked truth for what it is: survival; survival with enough vigor to insure the continuance of the human race as we know it."

The problem of interesting the public will be tremendous, that is, until the first bomb falls.

Recently in Washington 102 women delegates to a "congress on better living" show were polled on basement bomb shelters.

Those who would consider one at all said they would not build shelters to suggested government specifications "if it cost money."

"I just can't believe it (atomic bombing) could happen," one woman said. This seemed to sum up the reason for their general apathy about bomb shelters. Civil Defense officials had recently appealed to home owners to get busy on do-it-yourself bomb shelters.

Musings of the Field Secretary

Reports are that the Fifth Annual Southeast Missouri Cancer Conference held at Cape Girardeau on September 21 was the most successful of all such conferences held there to date. Some of the reasons given for this success are (1) the fine cooperation of the members of the Cape Girardeau County Medical Society in extending personal invitations to physicians in the entire area, (2) the important assistance of the Woman's Auxiliary of the medical society in providing entertainment for the wives of visiting doctors, (3) the excellent promotional help given by the Missouri Chapter of the American Cancer Society, (5) the reputation of past meetings for outstanding speakers and well organized programs, (6) and last, but by all means not least, the splendid work of the Arrangements Committee with Dr. Harold Rapp as Chairman.

The guest speakers were Dr. William Davis, Jr., head of the department of gastroenterology, Ochsner Clinic, and assistant professor of clinical medicine, Tulane University; Dr. Terry E. Lilly, Jr., Kansas City, consultant on surgery, Ellis Fischel State Cancer Hospital, Columbia, Missouri; Dr. Don C. Weir, associate clinical professor of radiology, St. Louis University, and director of the department of radiology, St. Louis City Hospital; and Dr. Harry M. Spence, clinical professor of urology and chairman of the department of urology, Southwestern Medical School of the University of Texas.

FIGHT
CANCER
CANCER SOCIETY

Officers of the Society and District and guest speakers were seated at the head table.

This informative and entertaining affair was composed of an afternoon session followed by a social hour and dinner and then a panel discussion to complete the day's offering. The attendance was approximately 100 and testifies to a growing interest in this annual cancer conference.

The 1958 Annual Meeting of the Missouri Academy of General Practice at the Chase Hotel in St. Louis on October 18 and 19 drew a total registration of 600.

The banquet held on Saturday night, October 18, was attended by some 200 people who were privileged to hear an entertaining and "much food for thought" talk by Morris Fishbein, M.D., of Chicago. He used as his subject "Fifty Years of Medical Progress." He discussed during this period many great developments in medical science, and upon the basis of these marvelous developments he made further predictions. He stated that among the most recent discoveries are the growth hormone and the hormone regulating pigmentation which are found in the pituitary gland. If knowledge of the melanocyte stimulating hormone is carried to its most complete conclusion, the time may come when pigmentation of human beings in red, yellow, brown, black and white may be controllable. Such a development as this might possibly help to solve some widespread problems.

Morris Fishbein, M.D., was speaker at the MAGP banquet.

He pointed out that whenever a great discovery is made in any branch of science, the first idea is to adapt that discovery to improvement of human health and the postponement of death. The heart-lung machine, the artificial kidney, the devices that drain fluid from the brain, the innumerable braces and supports and other mechanical devices to sustain the structure of the human body are an indication of such accomplishments.

A part of Dr. Fishbein's concluding remarks is as follows: "As far back as 1920 medical students were beginning to ask whether or not there was any future in medicine and in medical investigation. Today they may be assured that the future is greater than ever before. We wait the solution of cancer, of multiple sclerosis, of muscular dystrophy, of rheumatoid arthritis, of hypertension, of coronary thrombosis. We wait the full expansion of the necessary knowledge of genetics to make medicine more effective."

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Medical societies' evening dinner meetings which the doctors' wives attend, at least the dinner part of the evening festivities, seem to have established "a good attendance pattern." One of the more recent unusually well attended meetings was held at the Airport Cafe in Marshall where 75 doctors and their wives were in attendance, representing some five counties in mid-west central Missouri. One of the accompanying pictures shows a part of the audience while the other picture depicts some informal discussion with the speakers who were John A. Growdon, M.D., and Herbert H. Virden, M.D., both of Kansas City.

FIGHT
CANCER

Part of the audience at the Marshall meeting.

Members talk with the guest speakers.

NEW MEMBERS

Alsup, Frederick F., M.D., Box 193, Branson. Ozark County Medical Society.

Ash, Charles J., M.D., 1410 Peabody Court, St. Louis 4. St. Louis Medical Society.

Barden, Frank W., M.D., State Board of Health, Jefferson City. Cole County Medical Society.

Bowe, Edwin E., M.D., 120 Boonville Road, Jefferson City. Cole County Medical Society.

Brock, Bernard, M.D., Windsor. Henry County Medical Society.

Cannon, William J., M.D., 4952 Maryland Ave., St. Louis 8. St. Louis Medical Society.

Gillespie, Roy, M.D., Branson. Ozarks County Medical Society.

Goldstein, Richard, M.D., Doctors Bldg., Kansas City. Jackson County Medical Society.

Gullett, Charles C., M.D., 10 Richards Road, TWA Medical Dept., Kansas City. Clay County Medical Society.

Hayes, Lawrence L., M.D., Highway 169 and Barry Road, Gashland. Clay County Medical Society.

Heeb, Max A., M.D., 217 S. Kingshighway, Sikeston. Semo County Medical Society.

Kernodle, Jefferson D., M.D., Argyle Bldg., Kansas City. Jackson County Medical Society.

Kozlowski, Albert E., M.D., 3284 Ivanhoe St., St. Louis 9. St. Louis Medical Society.

Mars, Hartley F., M.D., Forsyth. Ozarks County Medical Society.

Nachman, Elias, M.D., Doctors Bldg., Kansas City. Jackson County Medical Society.

Reas, Herman W., M.D., 4401 Hampton Road, St. Louis 9. St. Louis Medical Society.

Rohr, Joseph H., M.D., Plaza Parkway Bldg., Kansas City. Jackson County Medical Society.

Scanlon, Robert C., M.D., Branson. Ozarks County Medical Society.

Schwarz, Ralph C., M.D., 9141 N. Swan Circle, St. Louis 17. St. Louis Medical Society.

Sundin, Paul, M.D., Windsor. Henry County Medical Society.

Waltrip, Roy T., Jr., M.D., 132 E. Front St., Sikeston. Semo County Medical Society.

Williams, John M., M.D., 32 S. Main St., Liberty. Clay County Medical Society.

DEATHS

Myers, Roy E., M.D., Joplin, a graduate of National University Arts and Sciences, 1916; member of the Jasper County Medical Society; aged 68; died September 4.

Brown, Charles W., M.D., St. Louis, a graduate of Missouri College of Medicine and Science, 1890; member of the Pemiscot County Medical Society; aged 93; died September 5.

Gerwig, Henry E., M.D., Downing, a graduate of Barnes Medical College, 1902; member of the North Central Counties Medical Society; aged 83; died September 9.

Jones, Paul L., M.D., Flat River, a graduate of St. Louis University Medical School, 1926; member of the Mineral Area Medical Society; aged 60; died September 26.

Virden, Charles E., M.D., Kansas City, a graduate of Northwestern University Medical School, 1920; Past President of the Missouri State Medical Association; member of Jackson County Medical Society; aged 63; died October 4.

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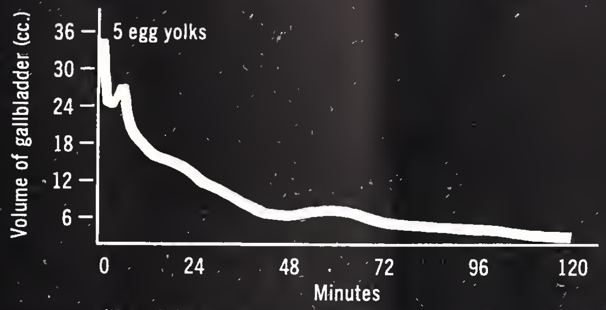

*Adapted from Wright, S.: Applied Physiology, ed. 8, London, Oxford University Press, 1947, p. 734.

What's wrong with the term "emptying of the gallbladder"?

The gallbladder discharges bile by fractional evacuation. It is not emptied completely at any one time even following a fatty meal.

Source—Lichtman, S. S.: Diseases of the Liver, Gallbladder and Bile Ducts, ed. 3, Philadelphia, Lea & Febiger, 1953, vol. 2, p. 1177.

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News

The *Sarcoxie Record* on September 25 carried a picture and article saluting **L. I. Holmes**, M.D., Miller, for his great service to his community. Dr. Holmes has practiced in Miller since 1910.

Grafton Smith, M.D., Columbia, discussed "Chest Surgery—Pre-operative and Post-operative," in a lecture to nurses of the Columbia area September 23.

T. E. Lilly, M.D., Kansas City, was the main speaker for the annual dinner meeting of the Carthage Branch of the American Cancer Society on September 30. Dr. Lilly's subject dealt with progress in cancer research.

Bert H. Klein, M.D., St. Louis, has been elected president of the medical staff of Deaconess Hospital. Dr. Klein succeeds **Birkle Eck**, M.D., St. Louis. Other officers are **Guerdan Hardy**, M.D., Clayton, vice-president, and **Lee A. Hall**, M.D., St. Louis, secretary.

"Our Present Care of the Mentally Ill and Our Hope for the Future" was the subject of a talk by **Emmett F. Hoctor**, M.D., Farmington, at a meeting of the Missouri Association for Social Welfare on September 16 at Farmington.

Hugh E. Stephenson, Jr., M.D., and **Thomas J. Baker**, M.D., professor and assistant professor of surgery at University Hospital in Columbia, both received a Cine Clinic plaque on October 8 at the 44th annual Clinical Congress of the American College of Surgeons in Chicago. The award was in recognition of their movie, "Neglected Problems in Surgery," which describes surgical considerations necessary when a lesion is neglected.

Robert E. Bruner, M.D., Kansas City, medical director of the Cerebral Palsy Center in Kansas City, was the guest speaker at a meeting of the West Central Affiliate, United Cerebral Palsy Association, on October 2.

Approximately 400 friends and acquaintances of **W. H. Goodson**, M.D., Liberty, attended a reception on September 28 in honor of Dr. Goodson's 50th anniversary of service to Clay County.

Gwilym S. Lodwick, M.D., Columbia, professor of radiology at the University of Missouri, addressed a refresher course conference of the Radiological Society of North America October 11 in Chicago.

Henry V. Guhleman, M.D., University assistant of psychiatry and neurology, was a guest speaker at a meeting of representatives of Missouri professional schools of nursing October 14 in Jefferson City.

"Methods of Medical Illustration" was the subject of a talk given by **Charles P. McGinty**, M.D., Cape Girardeau, at a meeting of the Cape Girardeau Chapter of Licensed Practical Nurses October 14.

M. D. Overholser, M.D., Columbia, presented his traditional "Show of Magic" at the first meeting this season of the Medical Dames October 22. The Medical Dames are wives of students in the University School of Medicine.

James B. Brown, M.D., St. Louis, professor of surgery at Washington University School of Medicine, was elected second vice-president of the American College of Surgeons at an annual meeting October 9 in Chicago.

Durward G. Hall, M.D., Springfield, recently served as chairman of a Citizen Responsibility Council meeting held in St. Louis by the Missouri Chamber of Commerce. The meeting was to encourage business leaders to take a more active role in politics.

Louis T. Byars, M.D., St. Louis, was installed as president of the American Society of Plastic and Reconstructive Surgery at a meeting of the society in Chicago recently.

Officers of the Missouri Society of Anesthesiologists for 1958-59 are president, **Edward O. Kraft**, M.D., Brentwood; president-elect, **Leon H. Rubnitz**, M.D., Kansas City; vice president, **Kenneth K. Keown**, M.D., Columbia; secretary-treasurer, **Harry C. Sammons**, M.D., Kirkwood.

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Councilor District News

FIRST COUNCILOR DISTRICT

DONALD M. DOWELL, CHILLICOTHE, COUNCILOR

Grand River Medical Society

The Grand River Medical Society met on October 9 at the Strand Hotel, Chillicothe. There was a good attendance of members, Auxiliary members and guests. After dinner the guests were introduced and the Auxiliary retired to their meeting.

The scientific program was presented by Dr. Clement E. Brooke, Department of Pediatrics, University of Missouri Medical Schoool, Columbia, who discussed "Current Concepts of Antibiotic Therapy for the Pediatric Patient." This was an interesting and scientific presentation of an interesting subject followed by questions and answers.

The committee appointed by the President at the last meeting, Dr. John R. Dixon, Dr. C. H. Cullers and Dr. V. D. Vandiver, made their report and recommended that no change be made in the present basis for MSMA delegate selection and number and that there be no increase in the number of councilors. This was carried by unanimous vote.

It was decided to give society meetings more publicity and that a copy of programs be mailed to the newspapers and radio stations in the nine counties.

Minutes of last meeting were read and approved. There being no further business the Society adjourned.

E. A. DUFFY, M.D., *Secretary*

The meeting started with a social hour and dinner.

The meeting drew a good attendance.

Nodaway-Holt-Atchison-Gentry-Worth Counties Medical Society

Immediately after a jovial and refreshing social hour, the Nodaway-Holt-Atchison-Gentry-Worth Counties Medical Society and the Society's Auxiliary, and invited guests of both organizations, to the number of thirty, dined together in the private hall ancillary to the Armstrong Cafe in Maryville, Tuesday evening, October 7, and found their massed banqueting most convivial and pleasurable. Noted as being among those present were Dr. Henry C. Bauman, Dr. and Mrs. Robert L. Dunshee, Dr. and Mrs. Eldon D. Imes, Dr. W. Raymond Jackson, Dr. and Mrs. G. R. Wempe, Maryville; Dr. Charles D. Humberd and Mrs. May Humberd, Barnard; Dr. and Mrs. Charlie W. Kirk, Hopkins; Dr. and Mrs. Edward F. Bare, Dr. and Mrs. Edward L. Niedermeyer, Tarkio; Dr. and Mrs. Emmett B. Settle, Rock Port; Dr. Albert L. Carlin, Stanberry; Dr. and Mrs. Frank B. Matteson, Grant City; Drs. Joseph H. Poff and Nathan L. Poff and C. M. Newman, Albany; Dr. Ralph Perry, Kansas City; Dr. and Mrs. Donald M. Dowell, Chillicothe; Dr. and Mrs. William B. O'Connor, St. Joseph, and Mr. Ray McIntyre, Field Secretary of the Missouri State Medical Association.

Drs. Dowell, Humberd, Dunshee and Perry.

After the Dutch-treat dinner, the ladies retired to their own meeting, and Dr. Dunshee, president, called the regular fall meeting of the coalesced Society to order at 7:55 p.m.

On convening, Dr. Perry, President-Elect of the Missouri State Medical Association, in behalf of Dr. W. F. Francka, President, immediately presented Dr. Dunshee with the engrossed and framed charter of the newly amalgamated and hyphenated Society, which bears the date of March 28, 1958, when the Council of the Missouri State Medical Association took the petitions for consolidation of the pre-existing societies under advertisement, and acquiesced to them. Dr. Perry's remarks on his presentation of this document were brief, and were no less congratulatory than they were forceful and moving, and they showed well that in 1959 there will be no diminution in the quality of that eminent leadership which will serve the Association through the year.

Roll call was omitted because the roster had already been compiled by the secretary, and on motion which carried unanimously a reading of the minutes of the stated meeting of April 7, 1958, was waived.

Pursuant to the approval of the Committee of Censors, Dr. Joseph Hillman Poff and Dr. Nathan L. Poff, Albany, were individually elected unanimously and by acclamation to membership in this Society by transfer as of August 1, 1958, from the Pemiscot County Medical Society, and notices of these transfers were prepared for mailing to Dr. John K. Duckworth, Secretary of the Pemiscot County Medical Society at Hayti, Mo.

Dr. Settle, pathologist to St. Francis and Fairfax Community Hospitals, spoke briefly on the current and worrisome problem of the control of staphylococcus infections, thought to be unduly promiscuous just now because of the frequent exhibition of the more common antibiotics in therapy. Some strains of the staphylococci seem to have become highly resistant to these agents. A motion carried that an advisory committee be appointed to formulate this Society's recommendations for the abatement of these infections. Dr. Dunshee, President, then appointed Dr. Settle to chairmanship of this committee with the privilege of personally choosing two other members as his co-workers on the committee.

Dr. Dunshee then officially mentioned our honor in having Dr. Dowell, Councilor of the First District and Vice-President of the Council of the Missouri State Medical Association, among us; Dr. Dowell arose for a hearty round of welcoming applause, but confined his remarks to an expression of his thanks for this, in view of the meeting's tendency (as too frequently) to run behind schedule.

Dr. Wempe of the Program Committee introduced Dr. O'Connor, St. Joseph dermatologist, who furnished the scientific portion of the session with a lecture on "Some Dermatologic Problems Seen in General Practice." His discourse was illustrated with lantern slides in color made from photographs which he had taken personally. Since he had chosen the most extreme, and most vivid and most striking, instances of sundry dermatologic diseases and conditions, his collection of slides made a close approach to being a veritable "chamber of horrors" of the ills to which the human epidermis is suspect. The principal clinical entities which he discussed were contact dermatitis, with its recognition and treatment, varicose ulcers, pemphigus and similar bullous conditions, atropic dermatitis with some peculiar instances which bore much superficial resemblance to impetigo, acne vulgaris, et pustularis et rosacea, psoriasis and the keratotic plaques so commonly seen in the elderly, including cornu cutaneum. Numerous questions of dermatologic concern were brought up by members of the audience, and the speaker graciously replied to these in as much detail as possible.

The meeting adjourned on motion at 10:40 p.m.

Charles D. Humberd, M.D., *Secretary*

SECOND COUNCILOR DISTRICT

B. L. MURPHY, HANNIBAL, COUNCILOR

Chariton-Macon-Monroe-Randolph County Medical Society

Herbert A. Weiner, M.D., research professor of pediatrics at the University of Kansas Medical School, Kansas City, Kansas, was the speaker on Thursday night, October 9, at the dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society at the Woodland Hospital in Moberly. He spoke on the subject "Some Old Diseases Associated With Newly-Recognized Viruses." He stated that the study of viruses has resulted in considerable progress having been made on the management of the common cold, holding out hope for more effective treatment in this common but incapacitating disease.

Dr. Weiner also said that some of the newly recognized viruses have been shown by epidemiologic study to cause symptoms which may resemble polio.

Guests at the meeting were Dr. Eugene Arnold, Moberly, and Mr. W. J. Brennan, professional relations representative of Missouri Medical Service of St. Louis.

Members present were Dr. C. C. Chors, Dr. W. D. Chute, Dr. Stanley Szymanski, Dr. J. W. Fleming, Dr. L. E. Huber, Dr. C. C. Smith and Dr. R. H. Young, Moberly; Dr. P. V. Dreyer, Huntsville; Dr. C. C. Weger, Keytesville; Dr. F. L. Harms and Dr. G. W. Hawkins, Salisbury; Dr. J. E. Campbell and Dr. D. E. Eggleston, Macon; Dr. F. A. Barnett, Paris; and Dr. D. D. Stuart, Brunswick.

Robert H. Young, M.D., *Secretary*

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Marion-Ralls-Shelby

Dr. Cutler joins in informal discussion following the meeting.

Twenty physicians attended a dinner meeting of the Marion-Ralls-Shelby County Medical Society at the Mark Twain Hotel in Hannibal on Tuesday night, October 21.

A social hour preceded dinner and the formal evening program. A number of Society business matters were discussed and acted upon prior to the scientific presentation of the evening.

The formal program was presented by Harold M. Cutler, M.D., Department of Ear, Nose and Throat, Washington University School of Medicine, St. Louis, who spoke on "The Management of Some Common Ear, Nose and Throat Problems."

His discussion was most practical, interesting and informative. Many questions were asked by those in attendance which added to the informality and value of the entire program.

In addition to Dr. Cutler, Mr. Ray McIntyre, Field Secretary of the State Association, was a guest.

J. H. Walterschied, M.D., *Secretary*

FOURTH COUNCILOR DISTRICT

JOSEPH C. CREECH, TROY, COUNCILOR

Lincoln-St. Charles County Medical Society

Twenty physicians and guests attended a dinner meeting of the Lincoln-St. Charles County Medical Society at the Southern Air Restaurant in Wentzville, on Tuesday night, October 14.

The evening festivities began with a social hour followed by dinner and then the program. James D. Clemens, Bowling Green, Circuit Judge of the 35th Judicial Circuit, spoke on "Services Available to Unwed Mothers and Unwanted Children Through the Child Welfare Office of the Juvenile Court." In discussing this subject the Judge called upon Mrs. Elmer Cope, Jr., Troy, Lincoln County child welfare worker, who discussed in detail specific points raised by some of the doctors present which seem to be universal problems concerning this subject.

Mary M. Daws, R.N., St. Charles County public health nurse, spoke on "Public Nursing Services." She explained a number of such services which are now available in St. Charles County.

Dr. Guy Magness, University City, and Ray McIntyre, St. Louis, Field Secretary of the State Association, were guests at the meeting. Dr. Magness is a member of the special committee set up at the 1958 meeting of the House of Delegates of the Missouri State Medical Association for the purpose of studying the councilor district set-up of the state association and reporting such study to the 1959 session of the House. Dr. Magness was anxious to have the feeling of the members of the Society on this matter and considerable discussion resulted.

The meeting was informal.

Paul Rother, M.D., *Secretary*

NINTH COUNCILOR DISTRICT

J. H. SUMMERS, LEBANON, COUNCILOR

South Central Counties Medical Society

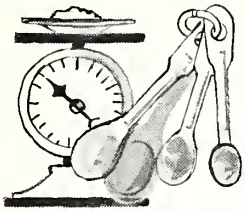
The South Central Counties Medical Society met at the Piney Inn Hotel, Houston, on Friday night, September 26.

Dr. H. O. Loyd, Jefferson City, a faculty member of the University of Missouri School of Medicine was the guest speaker. His subject was "Hematology in Office Practice." An interesting discussion followed the talk.

Dr. J. E. Lytle, Mammoth Springs, Arkansas, and Dr. D. G. Wilbur, Cabool, were elected to membership in the Society.

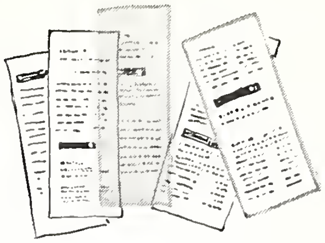
The physicians of Howell County were asked to cooperate with the local county extension clubs in the conduction of a diabetic diagnosis program in November. The members present agreed to cooperate with the program.

The next meeting will be held in Cabool on Wednesday night, October 29. The President of



Measured Amounts

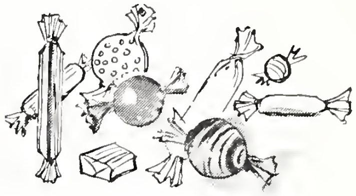
Fitting Casseroles



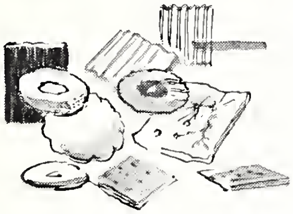
Food Exchange List

Punctual Meals

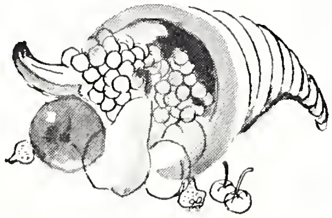
Light Snack



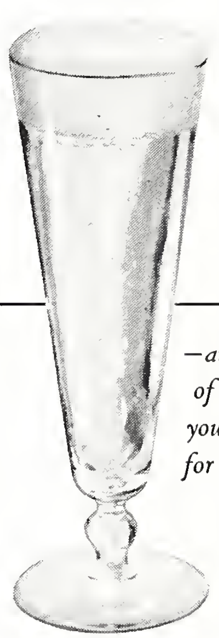
Safety Measure



Low-Calorie Nibbles



Varied Choice



A few suggestions to help the diet fit your patient's personal preferences and way of life

—and a glass of beer, with your consent, for a morale-booster

The Diabetic Diet

A measured diet is vital. Portions should be served in dishes that fit the serving. A small portion on a large plate is not a happy prospect. A food exchange list provides variations in diet. Insulin demands food with the urgency and regularity of an alarm clock.

If dinner is late, suggest a light snack at the usual mealtime with corresponding caloric reduction in the delayed meal. Hard candies do well as a precaution against insulin reaction. Plan low calorie wafers when others nibble canapés or chocolates. Above all, give your patient a variety of his food preferences.

And with a glass of beer*—at your discretion—your patient will find his diet interesting and ample without straying from instructions.

*Carbohydrate 9.4 Gm; Protein 0.8 Gm; Calories 104/8 oz. (Average of American Beers)

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the Auxiliary of the Missouri State Medical Association expects to be present at that meeting.

Members present included Drs. Beckman, Tarr and Burns, Houston; Drs. Hogg, Spears and Wilbur, Cabool; Dr. H. W. Miller, Willow Springs; Dr. R. W. Denney, Mountain Grove; Dr. Walton, Mountain View; and Drs. Fowler and Smith, West Plains.

There being no further business the meeting adjourned.

Rollin H. Smith, M.D., *Secretary*

TENTH COUNCILOR DISTRICT

BEN M. BULL, IRONTON, COUNCILOR

Dunklin County Medical Society

A joint meeting of the medical societies in the Bootheel was held at Kennett, at the Cotton Boll Hotel, on Thursday night, October 9.

Some thirty physicians from over the area were in attendance. The evening festivities began with social refreshments consisting of Bootheel tea (compliments of the local medical society) followed by dinner and the program.

The evening discussion was presented by A. B. Jones, M.D., St. Louis, Department of Neurology and Psychiatry, Washington University Medical School, who spoke on "A Few Remarks About Man, and Some Methods of Treatment and Drugs." This was an interesting and informative discussion and was well received by those in attendance. Dr. Jones was able to visit once again with a number of long-time friends in this area, and we hope he enjoyed being with us as much as we enjoyed having him present our program.

E. L. Spence, M.D., *Secretary*

The Council

The Council met at the Coronado Hotel, St. Louis, on September 27, 28, 1958, with J. H. Summers, M.D., Lebanon, Chairman, presiding. Those present were Drs. Summers; Donald M. Dowell, Chillicothe; B. L. Murphy, Hannibal; Leonard T. Furlow, St. Louis; Joseph C. Creech, Troy; Byron M. Stuart, Boonville; C. G. Stauffacher, Sedalia; Kenneth C. Hollweg, Kansas City; W. W. Tillman, Springfield; Ben M. Bull, Ironton; W. F. Francka, Hannibal; Ralph Perry, Kansas City; John I. Matthews, Jefferson City; R. O. Muether, St. Louis; Rolla B. Wray, Nevada; Victor B. Buhler, Kansas City; Joseph D. Kendis, St. Louis; Ralph E. Duncan, Kansas City; H. E. Petersen, St. Joseph; H. M. Hardwicke, Jefferson City; Hollis Allen, St. Louis; James P. Murphy, St. Louis; Joseph C. Peden, St. Louis; Messrs. John W. Noble, Kennett; Hollister Smith, Lemoine Skinner, Ed Schneider, Bill Logan, Ray McIntyre, Tom O'Brien, and Helen Penn, St. Louis. At noon on Sunday the Council of the St. Louis Medical Society were hosts to the Council at a reception preceding lunch and Drs. Arthur W. Neilson, Robert B. Bassett, Walter Baumgarten, David N. Kerr, Myron W. Davis, Robert W. Kelley, John P. Eberle, Charles S. Sherwin and George E. Thoma, St. Louis, were present.

BOYS' CLUB

A letter from the Boys' Club of St. Louis was read thanking the Association for the old mimeograph which was given them rather than the Association taking the $10 trade-in offered on a new mimeograph.

NATIONAL SOCIETY OF MEDICAL RESEARCH

A letter from the National Society of Medical Research requesting a donation of $50.00, which the Association has customarily given, was read and on motion of Dr. Muether, it was voted to make this donation.

AMERICAN DIABETES ASSOCIATION

It was announced that the American Diabetes Association had appointed Dr. Henry E. Oppenheimer, St. Louis, as governor of Missouri for a three-year term.

SOCIAL SECURITY

It was announced that the Cole County Medical Society had passed a resolution favoring Social Security for physicians, this being the third county to pass such a resolution.

BUDGET COMMITTEE

The Chairman appointed the following Budget Committee: Dr. Muether, Chairman; Dr. Francka, Dr. Perry, Dr. Matthews, Dr. Bull, Dr. Stuart, and Dr. Summers, ex-officio.

TREASURER'S REPORT

Dr. Muether reported on the finances of the Association and on motion of Dr. Dowell the report was accepted.

On motion of Dr. Tillman it was voted to authorize the Mercantile Trust Company to invest up to 10 per cent of funds in bonds other than government bonds.

Investment of funds of the Association was discussed and it was decided to ask the Mercantile Trust Company to discuss investments with the Council at the next meeting.

COMMITTEE ON ALCOHOLISM

Dr. Duncan presented a book "Alcoholism in Missouri: A Statement of the Problem and Recommendations" prepared by the Committee on Alcoholism to the Councilors. He recommended that the problem be presented to the Governor and General Assembly as called for in the annual report of the committee. The annual report stated in part:

"1. The State of Missouri should recognize the existence and magnitude of the problem of alcoholism, which directly or indirectly afflicts so many of its citizens and their families. There should be established a state supported program for the treatment and rehabilitation of alcoholics which will search into the causes and prevention of alcoholism, and will educate the public thereon.

"2. The program should be administered within the Department of Public Health, in a separate bureau or unit having certain autonomy, its own budget and sufficient staff. There should be established an appropriate advisory board or commission to guide, advise and assist in the development of the plan.

"3. The initial project should be supported out of the general revenues in an amount estimated necessary to start and develop the program."

Ways to implement the recommendations of the annual report were discussed. On motion of Dr. Tillman the book on alcoholism prepared by the committee was accepted and $100.00 was allocated to carry out the recommendations on the annual report.

JEFFERSON COUNTY SURVEY

Mr. McIntyre discussed the pilot screening survey being conducted in Jefferson County. He presented printed materials used in the survey and results of the survey. He pointed out that it was limited to persons more than 40 years of age, that it was conducted at the Jefferson County Health Center at Hillsboro, that local volunteer help was used while tests were made by professional personnel under the direction of the Division of Health, and that 3,800 persons had been screened. He said that the reactions of physicians in the county to the survey were mixed.

He reported on the Public Relations Conference of the American Medical Association, pointing out the principal parts of the program. Hon. Thomas B. Curtis, Congressman, St. Louis County, was a member of a panel discussion at the meeting. He reported that members of the Greene County Medical Society furnished the entertainment at a reception during the meeting, "Medical Hit Parade of 1958"; the program was well received and the troubadors received invitations from many state associations for future dates.

He reported on the fall board meeting of the Woman's Auxiliary and asked for more cooperation between the Association and the Auxiliary. He called attention to two community meetings honoring physicians for 50 years in practice, one for Dr. P. W. Jennings at Canton and one for Dr. J. H. Holman at Unionville.

MEDICARE

Mr. O'Brien reported that the Medicare contract had been renegotiated in Washington on September 3 and 4. The Missouri negotiating team was composed of Drs. Rowlette, Mixson, Muether and T. R. O'Brien. He explained the curtailment in the program made necessary by the reduction of funds allocated by Congress. He said that several thousand items in the manual were considered and reviewed but that few changes had been made. He explained the various changes in the program as they were outlined in Medicare Supplementary Bulletin No. 6, mailed to all Missouri physicians September 26.

He said that 56 per cent of dependents in Missouri do not live with their sponsors. The following statistics on payments in Missouri were given:

Cost of Medicare Claims Processed
July 1, 1957 through June 30, 1958.

	No. of Claims	*Amount Paid*
Physicians	10,382	$ 808,604.54
Hospitals	6,966	785,046.40
Total	17,348	$1,593,650.94

A.M.A.

Dr. Wray and Dr. Petersen reported briefly on the San Francisco session of the American Medical Association and called attention to the report which appeared in the August issue of MISSOURI MEDICINE. Dr. Wray presented the resolution introduced on the Veterans Administration by the Missouri delegation and the amended resolution adopted as follows:

RESOLUTION AS INTRODUCED BY MSMA

"WHEREAS, According to special report 85-3 of the Washington office of the A.M.A. the federal government spent $619,614,000 on hospitalized medical care of veterans in VA Hospitals in 1957, of which about 75 per cent had non-service connected disabilities, and

"WHEREAS, Ways and means of obtaining economy in federal government are allegedly being sought by Congress at this time; therefore, be it

"*Resolved*, That this House of Delegates of A.M.A. urge congressional action to restrict hospitalization of veterans at VA Hospitals to those with service connected disabilities; and be it further

"*Resolved*, That the organized medical profession of the United States offer to provide the VA with competent attending and consultant staffs of a quality acceptable to Dean's Committees provided admissions to VA Hospitals are restricted to patients with service connected disabilities."

The A.M.A. Reference Committee on Legislation and Public Relations amended the last paragraph as follows:

"*Resolved*, That the American Medical Association suggest to the Dean's Committees that they restrict their activities to Veterans Administration hospitals admitting only patients with service-connected disabilities."

The amended resolution was adopted unanimously by the A.M.A. House without debate.

VENDOR PROGRAM

Mr. O'Brien outlined the changes made by Congress recently in the Social Security laws. He pointed out that under terms of the present Missouri law a person on the aged welfare rolls in Missouri may get up to $60. This amount covers rent, food, clothing, etc., and medical care. Of that $60.00 the government pays $24.00 of the first $30.00 and $15.00 of the next $30.00, or $39.00, the state paying the balance of $21.00. The average payment in Missouri is $55.00 per month. If a person getting $40.00 a month needs medical care, the Department of Welfare may pay in monthly payments an amount up to $60.00, or $20.00 in this example, until the amount of the medical care is covered.

In those states that now have a vendor program, in addition to direct relief, the program pays directly to the vendor an amount set by the agency on the basis of a benefit schedule.

The new Federal program provides for participation by the Federal government in payments of $65 a month per old age recipient. Of this amount the Federal government still will pay $24 of the first $30, plus 53.42 per cent of the remaining $35.

This would make the Federal government's share of the $65 approximately $42.70, or nearly $4 more than under the present act. The states share of the new $65 ceiling would be approximately $22.30, as compared with the present $21 share in the present $60 payment. The new program goes into effect October 1.

It is believed at present that the hospitals desire a vendor-type payment for any money provided for medical care under the new act. However, under the terms of the new act it still is possible to pay medical care money directly to the recipient. More information should be available on this at the time of the next Council meeting.

Mr. O'Brien has asked Mr. Proctor Carter, head of the State Welfare Division, if it might not be possible to issue a joint check for the medical care portion of a recipient's welfare payment. The check would be made payable to both recipient and the hospital, for example. This, in effect, would still preserve the traditional payment plan preferred by the medical profession; i.e., the patient pays for his own medical care, rather than the state paying the vendor directly. However, it is felt that Mr. Carter prefers a vendor program.

ANNUAL SESSION

It was announced that Dr. John Growdon, chairman of the program committee for the Annual Session, would make a full report at the next meeting of the Council, that the program was well toward completion and that the entire session would be held in the Muehlebach Hotel.

PROBLEMS OF AGING

Dr. Perry presented a report on the A.M.A. meeting on Problems of Aging. The highlights of his report follow:

"Solving the problems of aging and the aged must begin with the individual and his community.

"To try to approach it from any other angle or level is to miss the problem entirely, I believe.

"We all realize that the medical profession basically is responsible for the problem. After all it is through our efforts that the life span has been steadily increasing. Now it looks as if we are going to have to be the leaders in making those increased years more meaningful.

"If we don't find the answers, answers will be imposed on us by the Federal government. Not that the lawmakers consciously want to dabble in our affairs, but because the pressures will be too tremendous for them to resist. I, of course, am referring to the Forand bill of the last session.

"This and other problems were discussed at the recent A.M.A. Planning Conference on Medical Society Action in the Field of Aging in Chicago. Some 40 states were represented by 125 delegates.

"There were six basic points developed by the panelists on the 2-day program. They were:

"1. Stimulation of a realistic attitude toward aging by all people. In line with this, it was suggested for example we may need a new hiring system in which a man is hired for life and so on. We certainly need a new policy in the arbitrary retirement at 65 philosophy.

"2. Expansion of skilled personnel training programs and improvement of medical and related facilities for older people. Here it cannot be a cut-and-dried solution, such as a certain type of home designed specifically for the oldster. It has been found that the older person wants to choose his own home and normally wants to stay in his own community which, as I already have mentioned, is what he probably should do.

"3. Promotion of health maintenance programs and wider use of restorative and rehabilitative services. The importance of this can be seen, by how just a short immobilization in bed causes the muscles to lose their tone.

"4. Amplification of medical and socio-economic research in problems of the aging. The A.M.A. asked that all material along these lines constantly be funneled to it.

"5. Cooperation in community programs for senior citizens. This, of course, follows the lines of endeavor being tried in our own Greene County-Springfield area in Missouri. In this plan (still in the formative stage) the entire community was first asked to decide what its most basic problem was and do something about it. Curiously enough the leaders in that area decided the health needs of the elder citizens was the most crying need. I am not certain how much or what type of progress has been made on solving those needs, but it does back up this point No. 5 rather well.

"6. Extension of effective methods of financing health care for the aged. Obviously, voluntary health insurance and prepayment plans can and should provide the basis for meeting large health care costs for most people, including the aged.

"Some of the ideas mentioned by Dr. E. B. Howard, Assistant Executive Vice-President of the A.M.A., pertaining specifically to the Blue Cross and Blue Shield Plans were:

"Show physicians why they should cooperate in reducing costs of the plans by reducing over-utilization.

"Reduce hospitalization costs by payment of health care for aged outside the hospital; i.e., in the home and doctor's office.

"Develop closer liaison between doctors and the Blue Plans.

"Develop total care plans for lower income groups.

"For commercial health insurance, Dr. Howard felt that a good major medical policy for both hospital and medical charges was good. The higher the deductible feature perhaps the better the policy.

"Physicians and medical societies were urged by him to discuss the ticklish subject of costs with hospital people.

"Another method of financing discussed by him was the post-payment or financing of medical and hospital expenses. It was felt that perhaps enough emphasis had not been placed on this procedure.

"The A.M.A. is anxious that each state association have a committee to cope with this problem of the aging.

"Missouri does not have one specifically so designated. However, these problems are being handled through our Committee on Hospital and Professional Relations, headed by Dr. Hollis N. Allen. The other members are Drs. Walter Sewell, Stanley Peterson, Carl Vohs, Victor Buhler, and W. F. Francka.

"This committee, as you know, is charged with representing our Association on the Conference for Improvement of Patient Care.

"The other members of the Conference are the State Hospital Association and the State Nurses Association. Inasmuch as most of the problems of aging would have to be discussed with these two groups, this com-

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mittee could be delegated the problem of aging. On the other hand, the Council might prefer to appoint a new committee."

After discussion of handling the problem at the state level, on motion of Dr. Francka it was decided to refer this to the Committee on Hospital and Professional Relations, with the privilege of adding members to the committee.

LEGISLATION

Dr. Peden reported on the final outcome of National legislation. A brief summary of his report follows.

"Three pieces of legislation occupied most of our legislative efforts during the 85th Congress. They were, the Forand bill to provide free hospitalization for Social Security recipients, the Jenkins-Keogh bills and the Medicare program.

"The Forand bill was held off this year. But it will be back next year for sure. The Keogh bill to provide tax relief for self-employed professional people also was held up despite our best efforts. We received numerous letters from lawmakers concerning their interest in the bill, but the final death blow came from the Senate Finance Committee and the Treasury Department. Medicare already has been discussed.

"Most of our legislative contact was done through county society chairmen or physicians who were known to be close to a particular legislator. On the whole it was a quiet-type campaign, designed to keep us out of the public eye.

"The way I see it, labor is trying, through vehicles such as the Forand bill, to extend its voting bloc to the retired persons many of whom came out of labor ranks. Now they number 13 million, and by 1960 they will be a million stronger. If labor leaders can be the champions of this group, think what it will add to their legislative power. Let's hope the Joint Council composed of the four major groups in the health field come up with some strong answers to combat Forand-type legislation. We should receive some help from the instructions of the House Ways and Means Committee to the Department of Health, Education and Welfare to conduct a study of medical care of the aged.

"Also the Senator Kennedy subcommittee of the Senate Welfare Committee is starting a study of all problems of the aged.

"Another measure passed instructs President Eisenhower to call a White House Conference on Aging in January, 1961. At this national meeting, federal, state and local leaders will pool their information.

"A series of state-organized meetings will precede the conference. States are to be allowed from $5,000 to $15,000 apiece to finance their meetings. Incidentally, this measure had the full support of the A.M.A.

"Congress, of course, did boost social security payments somewhat. While it was just a 7 per cent increase, it followed a long established pattern of sweeting up the program in election years. The minimum hike was fixed at $3 a month, a recipient.

"To pay for the increase, social security taxes and taxable base also were pushed up slightly, effective January 1. The Budget Bureau reports that as of now receipts are not keeping up with payments. Last year's receipts are estimated at 8.35 billion dollars, with payments more than 1 billion more at 9.49 billion dollars.

"While we lost the Jenkins-Keogh bills, we got further with the idea of deferring tax on income invested in proper securities than we have before. The Keogh bill finally passed the House in a greatly amended form only to die in the Senate Finance Committee. Not only was Senator Byrd, committee chairman, against the measure, but the Treasury Department opposed it.

"The Treasury Department was against it for two reasons: Financially, it would have meant a tax loss of about 400 million dollars a year, tax officials said. Philosophically, the department maintained it was unfair to give tax relief to just one segment of our population. However, we know that people working for corporations already, in effect, get tax relief on money invested for their retirement by the firm. The Treasury spokesman suggested that whenever the entire income tax structure is overhauled, that would be the proper time to see about tax relief for the self-employed professionals."

Dr. Peden discussed the introduction and withdrawal of a resolution in the A.M.A. House of Delegates asking for a review of the Cline report. He said that the resolution was withdrawn at the request of California because of a local problem there. After discussion, it was decided that advice should be obtained from the A.M.A. on reintroduction of the resolution.

STAPHYLOCOCCAL INFECTIONS IN HOSPITALS

Dr. Allen reported on a Conference for the Improvement of Patient Care called at the request of Dr. Hardwicke, as follows:

"A problem concerning hospital-acquired infections, especially those due to staphylococcus, has been referred to the Conference for the Improvement of Patient Care by Dr. H. M. Hardwicke, acting Director of the State Health Division. As a member of the Conference, I, in turn, am referring it to the Council for its decision.

"As you all know, the Committee on Hospital and Professional Relations is charged with representing our state association on this Conference. The other members of the Conference are the State Hospital Association and the State Nurses Association.

"The problem is this: Dr. Hardwicke feels it would be beneficial if he had a committee he could call into action in the event of a major staph infection in the state. He feels such a committee, similar to the composition of the Conference, would be a big help in making the survey needed in such an outbreak.

"It was the thinking of the Conference that rather than name another special committee, we would wait until Dr. Hardwicke had an actual survey problem. At that time, each of our organizations could designate a representative or two to work with the Division of Health. It is my feeling that such a problem could perhaps best be handled within our association by the Committee on Laboratory Medicine. The committee member closest to the point of outbreak could then be requested to advise with Dr. Hardwicke concerning his survey."

On motion of Dr. Muether, the report was accepted.

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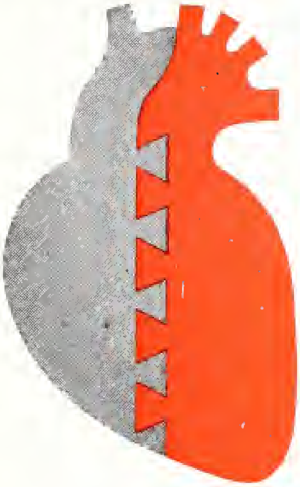

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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* 1:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* 8:*504, Dec. 1957.*

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SPECIAL COMMITTEE TO DIVISION OF HEALTH

Dr. Stauffacher made the following report for the Special Advisory Committee to the Division of Health:

"Problems presented by Dr. Hardwicke:

"1. Dr. Hardwicke was concerned over fulfilling requests of many doctors in private practice for services from the Division of Health, such as serologies. Dr. Hardwicke requested help from MSMA in handling this laboratory problem of determining just what functions the State Laboratory should serve.

"The results of this study is covered in the report of the Committee on Laboratory Medicine that follows this report.

"2. He discussed the present Nursing Home Law and problems being encountered in the expanding need for more and better homes. He feels that much more needs to be done to prevent the disabilities of the people seen in most of these homes. On the basis of present experience he feels that most doctors are too busy or unwilling, and unlikely to assume much responsibility for the rehabilitation of those in, or about to enter, these homes. To what extent should the Division of Health get into the solution of this problem?

"3. How can the Public Health Nurse be more helpful to the doctor in private practice? The question was asked of Dr. Hardwicke as to what the functions of a Public Health Nurse were? He also would like to see the local P. H. Nurse function in recruiting retired and married nurses in each community for limited nursing duty.

"4. In public health education, Dr. Hardwicke proposes that a selling job be done to promote the idea of every person having a family physician and following his counsel on health matters.

"5. He stated that the Division of Health is supplying vitamins to pre-natal free clinics, and biologicals and medications in numerous other situations. Among others this takes in school immunization programs. What policy should be followed by the Division of Health in these matters?

"Recommendations of the Special Advisory Committee:

"1. See report of Committee on Laboratory Medicine.

"2. That education rather than legislation is needed in most of these public health matters, including the nursing home problem. It was suggested to Dr. Hardwicke that he make himself available to appear before County Medical Societies from time to time and discuss mutual problems. He agreed to do this.

"Therefore, the Committee recommends to the Council—that County Medical Societies be requested to invite Dr. Hardwicke, Acting Director of the Missouri Division of Health, to appear on society programs to discuss mutual problems.

"3. That county medical societies be advised that individual doctors in counties where Public Health Nurses are employed will be contacted by the nurses to explain how they may be helpful to the doctors.

"4. That the Committee agrees with Dr. Hardwicke's basic proposal of promoting a family physician for everyone and following the counsel of this physician in health matters. Further, that greater emphasis should be placed in public health education on the idea that only people who cannot afford to pay for their medical care should get it free.

"5. That the Division of Health and an appropriate committee of MSMA suggest a policy governing the distribution of biologicals, medications and vitamins by the Division of Health."

It was pointed out that the Division of Health might use Missouri Medicine for dissemination of information to physicians of the state. After discussion of referral of problems to standing committees, on motion of Dr. Muether it was voted to continue the Special Committee which could then use the facilities of standing committees for specific questions.

COMMITTEE ON LABORATORY MEDICINE

Dr. Buhler reported on the evaluation by the Committee on Laboratory Medicine of the laboratories of the Division of Health which was done at the request of Dr. Hardwicke. He said that the committee agreed with Dr. Hardwicke that some procedures should be discontinued including routine serological tests, but that premarital serological examinations should be continued because of legal requirements. Dr. Buhler said that pathologists in the state would take care of indigent cases. In discussion it was pointed out that the report of serological examination on birth certificates was not required by law but that premarital examination was.

On motion of Dr. Tillman, it was voted that the Division of Health should discontinue all serological work except that of premarital examination. It was agreed that this information should be widely disseminated to avoid confusing the public and physicians.

Dr. Buhler reported that the results of the cytology program were gratifying and that 25 per cent of physicians in the state had seen the film "Time and Two Women" and had seen demonstrations. He said that 47,000 examinations were made during the last year. He said that the second phase, that of educating the public, would begin in the near future.

A.M.E.F.

Dr. James P. Murphy presented the following report on the American Medical Education Foundation:

"This year the American Medical Education Foundation Committee of MSMA decided to try a personal solicitation campaign to raise money for our medical schools.

"Nearly 40 of our 55 component medical societies already have named solicitation chairmen in response to a request from our committee. We are contacting these chairmen, asking them to appoint a committee to do the actual soliciting. We are suggesting a committeeman for each 5 or 10 members of their society.

"Incidentally, Missouri gave $9,226 last year to AMEF. While this was an increase over the $7,484 given the year before, the number of givers dropped from 230 to 223.

"Our campaign starts October 1 with a 1-page editorial in the *State Journal* on the medical schools' need. It will outline completely the program to be used this year in Missouri.

(Continued on page 1371)

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- a reliable defense against monilial complications

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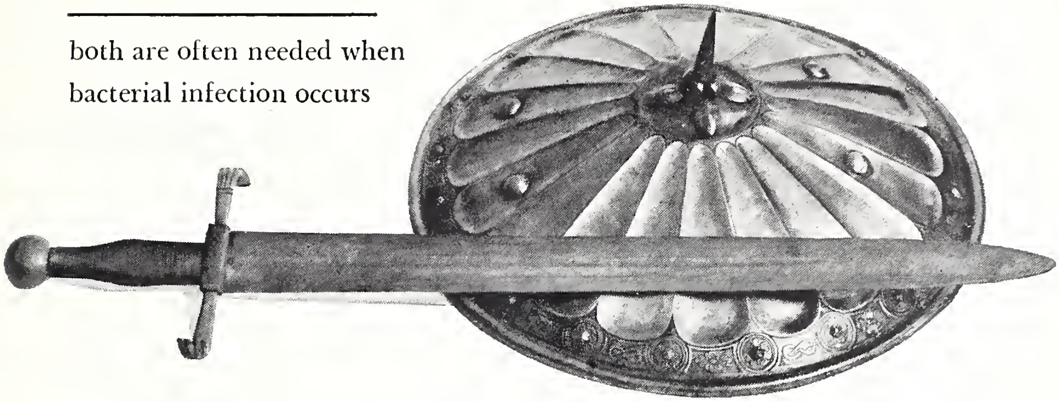

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From the Medical Schools

WASHINGTON UNIVERSITY

Grants Announced

Washington University School of Medicine has been awarded $1,384,516 in new, renewal and supplemental grants by the U. S. Public Health Service, Dean Edward W. Dempsey announced Oct. 12.

Dr. Dan C. Tosteson, associate professor of physiology, received the largest new research grant of $33,664 for a study of the regulation of the salt and water content of cells. Dr. Eli Robins, professor of psychiatry, was awarded $320,950 for immunochemical investigations in schizophrenia.

Dr. Harvey R. Bernard, assistant professor of surgery, received a new research grant of $15,100; Dr. Lillian Recant, associate professor of medicine and preventive medicine, $14,156; Dr. James L. O'Leary, professor of neurology, $11,544; Dr. Robert Rainey, assistant in clinical surgery, $10,364; Dr. Allen P. Klippel, assistant in clinical surgery, $6,965; and Dr. Arthur H. Stein, Jr., assistant professor of orthopedic surgery, $6,283.

Supplemental and renewal research awards were to Dr. Sol Sherry, $49,895; Dr. Carl V. Moore, $35,004; Dr. Arthur Kornberg, $31,456 and $16,568; Dr. E. V. Cowdry, $28,582 and $6,900; Dr. Melvin Cohn, $29,055; Dr. Catherine A. Smith, $26,801; Dr. Marguerite A. Constant, $27,600.

Dr. Bernard Becker, $22,360; Dr. Walter P. Covell, $22,431; Dr. Paul A. Cibis, $22,342; Dr. Edward W. Dempsey, $21,562 and $15,760; Dr. Helen T. Graham, $20,321; Dr. Carl A. Moyer, $19,090; Dr. Stanley F. Hampton, $18,400; Dr. W. Stanley Hartroft, $17,770 and $7,351; Dr. Neal S. Bricker, $17,195; Dr. Ben H. Senturia, $16.488 and $14,850; Dr. William H. Landau, $15,972; Dr. F. Edmund Hunter, Jr., $15,603; Dr. Wilbur A. Thomas, $15,200 and $15,093; Dr. Jack L. Strominger, $15,410 and $9,905.

Dr. Harvey R. Butcher, Jr., $15,038; Dr. David S. Hogness, $14,897; Dr. Armin Dale Kaiser, $14,582; Dr. Edward H. Reinhard, $14,556; Dr. T. E. Weichselbaum, $12,844 and $8,125; Dr. Morris Kenton King, $13,203.

Dr. David M. Kipnis, $12,612; Dr. Harvey L. White, $12,392; Dr. Falls B. Hershey, $12,000; Dr. Albert B. Eisenstein, $11,500; Dr. Hugh Chaplin, Jr., $11,413; Dr. H. Mitchell Perry, Jr., $10,350; Dr. David H. Brown, $10,350; Dr. George R. Drysdale, $10,025; Dr. Paul L. Lacy, $10,000 and $8,000; Dr. John Esben Kirk, $9,133; Dr. Sarah A. Luse, $8,500.

Dr. Margaret G. Smith, $8,473; Dr. William W. Sleator, $8,199; Dr. Carl Frieden, $7,615; Dr. Joseph W. Noah, $7,015; Dr. James C. Harkin, $7,000; Dr. Oliver H. Lowry, $6,900; Dr. Blake William Moore, $6,900; Dr. John R. Smith, $6,577; Dr. Arthur Hess, $6,173; Dr. Charles H. Nicolai, $6,060; Drs. Martin and Ruth Silberberg, $5,962; Dr. Frederick W. Klinge, $5,853; Dr. Adolph I. Cohen, $5,750; Dr. Mildred Trotter, $5,508.

Dr. Seymour Reichlin, $5,296; Dr. Kyi Taik Lee, $3,381; Dr. William H. Daughaday, $3,397; Dr. George H. Bishop, $3,000; Dr. William H. Danforth, $2,242; Dr. Alexis F. Hartmann, $694.

The grants will support research in the departments of anatomy, biological chemistry, internal medicine, microbiology, ophthalmology, otolaryngology, pathology, pharmacology, preventive medicine, psychiatry and neurology, surgery and pediatrics and in the divisions of cancer research and gerontology at Washington University School of Medicine.

A new $24,430 grant to Dr. Carl G. Harford, assistant professor of medicine, will be used for a graduate training program in allergy and infectious diseases. The pharmacology graduate training program was supplemented by a new $12,983 grant to Dr. Oliver H. Lowry, professor and head of the department.

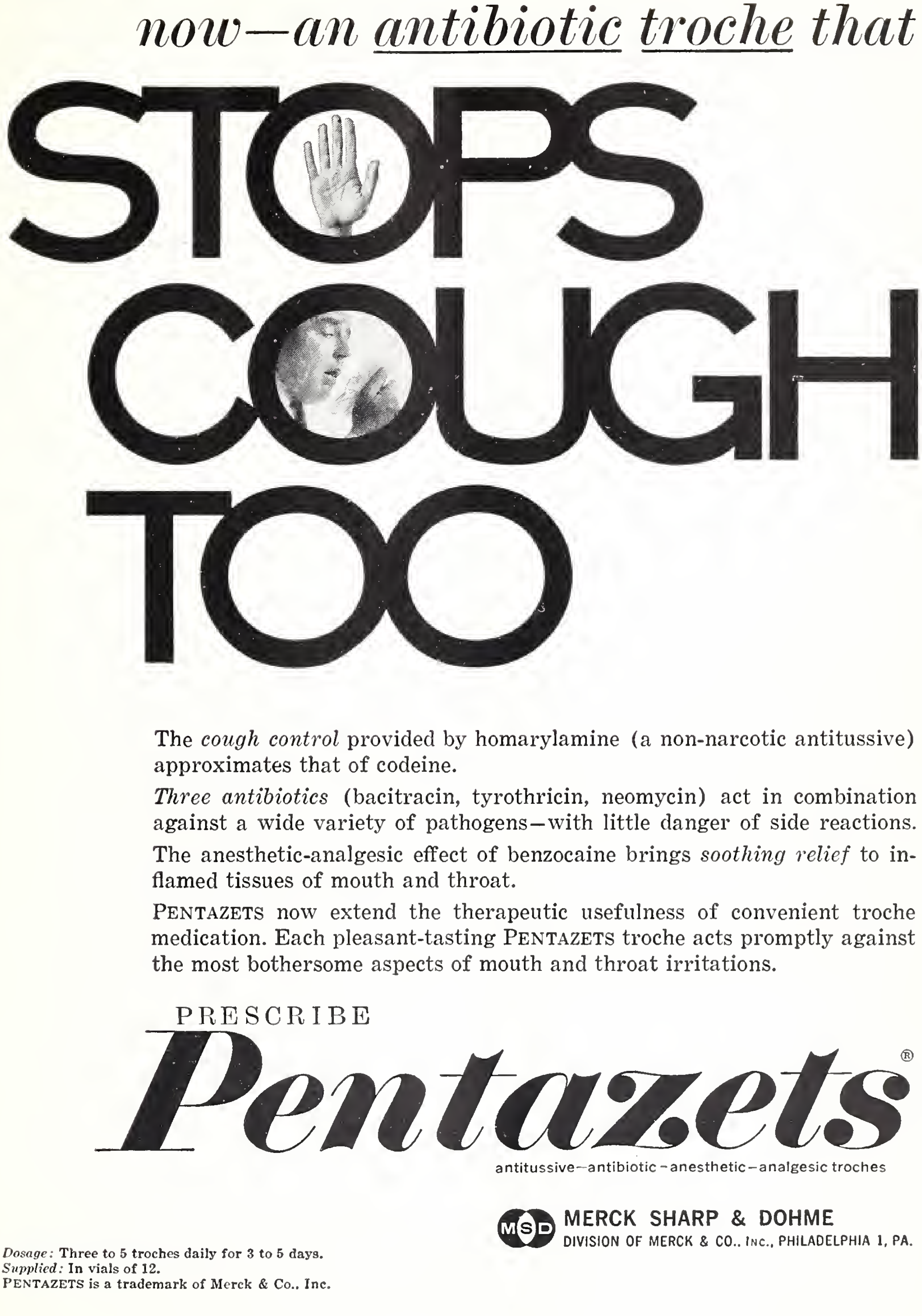
Renewal training grants were awarded to Dr. Edwin F. Gildea, Wallace Renard professor and head of the department of psychiatry and neurology, $65,977 for graduate training and $32,776 for the undergraduate program; Dr. Bernard Becker, professor and head of the department of ophthalmology, $36,499; Dr. Edward W. Dempsey, $35,812 for research training in cytology in the department of anatomy.

Dr. John R. Smith, associate professor of medicine, received a $25,000 heart teaching grant; Dr. Carl V. Moore, Busch professor and head of the department of medicine, $25,000 for the hematology training program; Dr. Harvey R. Butcher, associate professor of surgery, $24,986 for cancer teaching in the division of tumor services; Dr. Theodore E. Walsh, professor and head of the department of otolaryngology, $23,976 for student training; Dr. William H. Daughaday, associate professor of medicine, $17,400 for the diabetes training program in the department of internal medicine.

Miscellaneous grants from the U. S. Public Health Service included $3,456 to Washington University School of Medicine for a post-sophomore research fellowship for William J. Crowley, Jr., and grants of $500 each to cover laboratory expenses in connection with the post-doctoral fellowship programs of Drs. Samuel W. Kime, Daniel N. Mohler, John D. Vavra, Eloise H. Clark and Fred H. Bergmann.

Elections, Honors

Dr. Herman N. Eisen was elected president of of the Washington University Medical Society at the October meeting in the David P. Wohl, Jr. Memorial Hospital Auditorium. Dr. Eisen is pro-



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fessor of medicine at Washington University Medical School. Newly elected vice-president of the society, which is composed of all students and faculty members of the Medical School, is Dr. Sidney Velick, associate professor of biological chemistry. Dr. Jack Davies, associate professor of anatomy, was reelected secretary. Society council members, also elected at the meeting, are Dr. Jack Strominger, associate professor of pharmacology; Dr. Falls B. Hershey, associate professor of surgery; Dr. William Harrington, associate professor of medicine; and Dr. Richard Spitz, assistant in pediatrics.

Five undergraduate students received awards for excellence in scholarship during the 1957-58 school year. Richard D. Aach, University City, received the $200 Alumni Scholarship Award for excellence in work during his junior year. Bradford DeLong, Evanston, Ill., sophomore, was awarded the $50 George F. Gill prize for superior work in anatomy. David T. Hammond, Jr., Bluffton, Ind., received both the Howard A. McCordock Book prize for excellence in pathology and the Roche Award, a watch and scroll given in recognition of outstanding scholarship during the first two years of Medical School. William George Juergens, Jr., Chester, Ill., sophomore, was awarded the $50 biochemistry prize and the $100 Alexander Berg prize for the best results in research in bacteriology was received by Gustav Schonfeld, East St. Louis, Ill. Schoenfeld is a junior student. A research paper on "Biochemical and Pharmacological Interactions of Reserpine and Chlorpromazine With Nicotinamide" was presented by Dr. Robert M. Burton, assistant professor of pharmacology. The study, presenting chemical evidence supporting one theory of how tranquilizers produce their effect was conducted by Dr. Burton and Dr. Richard Salvador in collaboration with Brandeis University and the National Institutes of Health, Bethesda. Dr. Burton discussed the research in September at the 4th International Biochemistry Congress in Vienna. "Experimental Evidence Relating to the Sources of the Spike and Dome of Convulsive Discharge" was reported by Dr. Sidney Goldring, assistant professor of neurologic surgery at Washington University. Research was conducted by Alan Pearlman, sophomore medical student; David Winter, senior medical student, Dr. Goldring and Dr. James L. O'Leary. The Medical Society meets several times during the school year to keep students and faculty informed of current medical research conducted by staff members of Washington University School of Medicine and affiliated hospitals.

Visitors

Harry V. Gibson, M.D., Commissioner of Health, Alaska Department of Health, Juneau, a graduate of the Washington University Medical class of 1924, visited the Medical School recently, while in St. Louis to attend the American Public Health Association meeting. He was a guest of the Department of Preventive Medicine and of Dr. Philip Shaefer, distinguished service professor emeritus of biological chemistry and lecturer in biological chemistry. Dr. H. M. Griffith, who received his medical degree from Washington University in 1905, and has been practicing medicine in Pasadena, Calif., for the past 46 years was a visitor at the Medical School in October.

UNIVERSITY OF MISSOURI

Meetings

A meeting of the Medical History Group was held at the Medical Center on September 23, 1958, at which Dr. Ramsay Spillman, radiologist from New York City, spoke to the group on "Dr. Lewis Gregory Cole—Pneumoconiosis and Other Controversies." The next meeting will be held on October 30 at which Dr. Ray Vickers, assistant professor of medicine, will speak to the group on "Men of Blood."

A meeting of the Gray Ladies of the University Hospital was held at the Auditorium of the Medical Center on October 13 and they also met again on October 16.

A meeting was held on October 13 at the Medical Center at which the various internship programs sponsored by the Armed Forces of the United States were explained by the different officers. All medical students were invited to attend.

A meeting of the Missouri Christian Medical Society was held at the Medical Center on October 17 and a film was shown on "Red River of Life."

Trips and Talks

Dr. Roscoe L. Pullen, Dean of the School of Medicine and Medical Director of the University Hospital, has just returned from San Juan, Puerto Rico, where he was invited to serve as a consultant in the planning of a new Medical Science Building for the University of Puerto Rico School of Medicine at San Juan. Dr. and Mrs. Pullen left October 4 and remained in Puerto Rico for one week. Dr. Pullen has also been asked by the Arizona State officials to serve as a consultant in the building of a new medical school there and in May 1959 will take part in meetings in Phoenix to discuss plans for the school.

Dr. Frank B. Engley, Jr., Assistant Dean of the School of Medicine, attended the annual meeting of the Association of American Medical Colleges in Philadelpha from October 10 through 15. President Elmer Ellis of the University of Missouri and Dr. Engley attended the meeting of University Presidents, Chancellors, and Deans held on October 12 and 13 to discuss problems in medical education. Dr. Engley also attended the meeting of the Continuing Education Group held on October 11 and 12 on the subject of Evaluation of the Medical Student.

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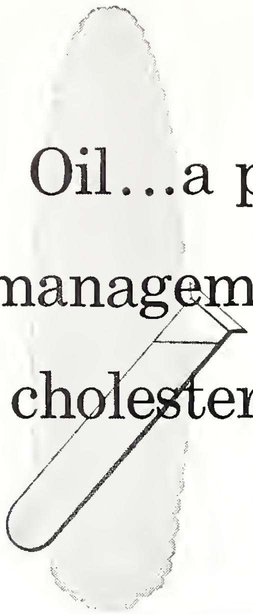

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Dr. C. Thorpe Ray, professor and chairman of the Department of Medicine, Dr. J. E. Flynn, professor and chairman of the Department of Pathology, and Dr. H. E. Stephenson, Jr., professor and chairman of the Department of Surgery, attended the fifth annual postgraduate study of Cardiology sponsored by Missouri Heart Association and the Greene County Medical Society held in Springfield, Missouri on September 26. Doctors Ray, Stephenson and Flynn presented a Clinical Pathological Conference on "Abdominal Aneurysms."

On October 7 through 11, Dr. Ray attended the meeting of the Association of American Medical Colleges held in Swampscott, Massachusetts. Dr. Ray attended this First Institute of Clinical Teaching as the faculty delegate from the University of Missouri Medical Center.

Dr. Thomas W. Burns, associate professor of medicine, attended a meeting of the National Rehabilitation Association held in Jefferson City on September 26 and participated in a panel on "Problems of the Disabled in Adjusting to Modern Family Living."

Dr. Ray Vickers, assistant professor of medicine, and Dr. William Wade, assistant professor of surgery, attended the meeting of the American College of Surgeons held in Chicago on October 6 and 7, and presented a paper on "The Use of Dextran Sulphate as an Anticoagulant in Open Heart Surgery."

On October 17, Dr. Vickers spoke to the Jefferson City Men's Methodist Association on "Religious Life in Mid-Century Britain," and on October 19, Dr. Vickers spoke to the Graduate Christian Fellowship at the University of Missouri on "The Moral and Practical Implications of Socialized Medicine."

Dr. Frank B. Engley, Jr., professor and chairman of the Department of Microbiology, attended a regional meeting sponsored by the USPHS on "Staphylococcus Infections in Hospitals." The meeting was attended by representatives of hospitals and medical centers from six states and Dr. Engley represented the University of Missouri Medical Center at this meeting, On September 30, Dr. Engley, Dr. H. S. Goldberg, associate professor of microbiology, Dr. James T. Barrett, assistant professor, and Richard A. Guthrie, medical student, attended the business meeting of the Eastern Missouri Branch of the Society of American Bacteriologists held in St. Louis. There was discussion on the annual meeting to be held in St. Louis and research papers were presented by various microbiologists. Mr. Richard Guthrie presented a paper of which he was co-author with Dr. Barrett on "Agglutination of Leukocytes From Hypersensitive Animals."

Dr. J. S. Roden, associate professor and chairman of the Department of Obstetrics and Gynecology, and Dr. Kenneth K. Keown, professor of anesthesiology, participated in a panel discussion on "Infant Resuscitation Following Cesarean Section and Vaginal Delivery" sponsored by the Southeast Missouri County Medical Society and the Missouri Delta Community Hospital at Sikeston on October 13.

Dr. Joseph E. Flynn, professor and chairman of the Department of Pathology, attended a meeting of Coordinators of Cancer Teaching held in Chicago on October 9 and 10.

On September 21, Dr. Vincent Perna, assistant professor of pathology, and Miss Ann Gouldman of the University Hospital Blood Bank, Miss Jane Belden and Miss Carol Swindel, technology students, attended a seminar on "Blood Banking" given by the Ortho Pharmaceutical Corporation and sponsored by the Missouri Aassociation of Blood Banks.

Dr. G. S. Lodwick, professor and chairman of the Department of Radiology, attended a meeting of the Leukemia Guild of Missouri for a conference of the Medical Advisory Committee on October 10 in St. Louis.

Dr. Hugh E. Stephenson, Jr., professor and chairman of the Department of Surgery, spoke to the Optimist Club of Columbia on "New Advances in the Treatment of the Cardiac Patient," on September 19. On September 22, Dr. Stephenson spoke at the Independence, Missouri, Rotary Club meeting. Dr. Stephenson and Dr. Thomas J. Baker, formerly of the University of Missouri, presented a movie on "Neglective Surgical Lesions" at the Cine Clinic of the American College of Surgeons at their meeting in Chicago October 6 to 10. Dr. Robert Paulette, instructor in surgery, presented a paper on "The Role of the Pancreas in Immune Body Formation" at the Fundamental Forms Session. Others making the trip were Dr. William J. Stewart, clinical associate in surgery, Dr. Earl J. Wipfler, Jr., assistant instructor in surgery, and Mr. Herbert Schmidt of Marthasville, Missouri. Mr. Schmidt represented the University of Missouri medical students, and he and his wife were guests of the American College of Surgeons for the entire week.

On October 15 to 18, Dr. Stephenson attended the annual meeting of the Markle Scholars of the John and Mary R. Markle Foundation in Lake Placid, New York.

New Appointments

Dr. Clarence M. Pickard was appointed clinical associate in medicine, effective October 1. Dr. Pickard received his M.D. from the Johns Hopkins University in 1948 and is now in private practice in Columbia.

Dr. Earl Loyd was appointed clinical associate in medicine effective October 1. Dr. Loyd received his M.D. from Kansas University in 1937 and is currently in the private practice of medicine in Jefferson City.

SAINT LOUIS UNIVERSITY

Grants

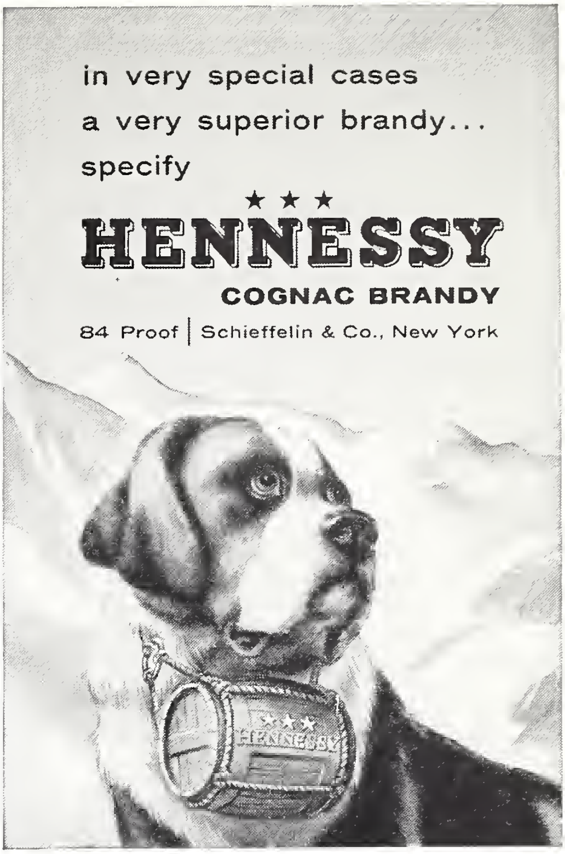
A $225,690 reserch training grant in general microbiology and virology has been awarded to the department of microbiology by the National Institute for Allergy and Infectious Diseases of the National Institutes of Health. The grant which became effective October 1 is for a five year period. The new training program will be under the direction of Dr. R. Walter Schlesinger, professor of microbiology and director of the department and Dr. Edwin L. Minard, associate professor of microbiology.

It will offer young scientists, who have earned Ph.D. Degrees in other sciences an opportunity to broaden their range of training and experience along lines which are being pursued in the department. An equally important opportunity offered by the grant will be to provide research training in microbiology and infectious diseases to young physicians in the hope that they will become interested in a career in microbiology and related basic sciences. The new grant will also augment the research program in microbiology for medical students.

Dr. Goronwy O. Broun, professor of internal medicine, has received a new grant of $18,501 from the National Institute of Neurological Diseases and Blindness of the National Institutes of Health for research studies of encephalitis viruses. Dr. Broun will study, par- A $225,690 research training grant in general micro- ticularly, St. Louis encephalitis, a type which occurred in epidemics in St. Louis in 1933 and 1937. He will investigate certain factors that allow invasion of the brain by the virus after it has been introduced under the skin by a mosquito bite. Dr. Broun has been interested in research in this field since the epidemic of 1933 and is the author of a number of publications. He isolated encephalitis virus from cases during both St. Louis epidemics.

Student Loan Plan

The Vitale Medical Foundation Student Loan Plan has been inaugurated at the School of Medicine and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will permit medical students to borrow money at low interest rates. Dean Colbert last month accepted a check for $2,500 from Dr. Mel A. Cassell, vice president of the Foundation. The loans may be outstanding for as long as three years, but must be paid by the medical student before graduation. The Vitale Medical Foundation is a nonprofit organization which was established by physicians, lawyers and businessmen for medical education and medical charities.

Lectures

Dr. Elizah Adams, director, department of pharmacology, attended the Fourth International Biochemical Congress held in Vienna in September. He delivered a paper titled "Metabolism of Hydroxyproline."

Dr. Rene Wegria, director, department of internal medicine, participated in the First International Symposium on Submarine and Space Medicine held in New London, Conn., September 8-12. The symposium was sponsored by the American Institute of Biological Sciences, with the support of the Department of Defense. Dr. Wegria delivered a paper on "Regulation of Coronary Circulation."

Dr. Roy V. Boedeker, assistant professor of obstetrics and gynecology moderated a panel on "Practical Aspects of Ovarian Endocrinology" before the Illinois Chapter of the American College of Surgeons Annual Meeting held in Quincy, Illinois, last month.

Three scientific sessions were sponsored by the Departments of Surgery, Neurology and Psychiatry and Urology during the month of September in observance of the Silver Jubilee of Firmin Desloge Hospital. An inter-departmental program sponsored by the many departments of the School of Medicine will mark the final in a series of ten scientific programs which have been held in conjunction with the hospital's Jubilee. The program will be held in Miller Hall of Firmin Desloge Hospital November 19. Divided into two sections, the morning program will be titled "The Practitioner's Office as a Cancer Detection Center." It will be moderated by Dr. C. Rollins Hanlon, Director, Department of Surgery. The afternoon session will be titled "The Management of Home Emergencies." It will be moderated by Dr. William F. Knight, associate professor of internal medicine. Panelists to participate in the one day program will include: Dr. Paul F. Fletcher, Dr. Louis Keller, Dr. Edward D. Kinsella, Dr. J. Eugene Lewis, Jr., Dr. William F. Melick, Dr. Thomas M. Mier, Dr. Francis X. Paletta, Dr Chester P. Lynxwiler, Dr. Robert D. Mattis, Dr. Bernard J. McMahon, Dr. James P. Murphy, Dr. Robert M. O'Brien and Dr. Harry K. Purcell. The panelists are all members of the University faculty.

Appointments

Dr. Goronwy O. Broun, Jr., a McBride Fellow in hematology at the Saint Louis University School of Medicine, has been appointed instructor in internal medicine. He recently spent a month at the Oak Ridge Institute of Nuclear Studies to study radioisotope technics. Dr. Broun was awarded his M.D. Degree from Saint Louis University in 1952. He came to St. Louis from the University of Washington in Seattle where he spent the last two years as a hematology trainee.

Dr. Dermott Smith has been appointed assistant professor of psychiatry. He was awarded his M.D. Degree from Saint Louis University in 1949, interned at Providence Hospital in Washington, D. C., and took his residency in psychiatry at Walter Reed Hospital. He served as assistant chief of psychiatric service at Tripler Army Hospital in Honolulu from 1955 to 1958.

Dr. Warren G. Hansen, formerly an assistant in the department of biochemistry, has been appointed an instructor in pathology. Dr. Sung Lan Hsia, formerly a research associate in the department of biochemistry has been appointed an instructor in biochemistry. Dr. John E. Byrne, formerly an assistant in urology, will assume new duties as instructor in urology. Dr. Byrne was on leave of absence from the University for military service. Dr. Valentin Bonifas, formerly research associate in the department of microbiology has been appointed associate professor in the microbiology department. He came to St. Louis a year ago from Geneva, Switzerland, where he was a director of the Virus Laboratory of the State Institute of Hygiene in Geneva.

Across Missouri

(Continued from page 1286)

mentally retarded and handicapped, according to Senator C. R. Hawkins, Republican, of Brumley.

Senator Hawkins, who heads the Commission for the Handicapped, said specific requests for increases will be worked out this month by his group. They probably will include:

1. Recommendations for half-way houses. These are home-like facilities in the community, set up to help the retarded bridge the gap from the regular institution to society.
2. Steps to allow one school district to contract with another for classes for its retarded and handicapped children.
3. An increase in the current appropriation of $100,000 for training centers for the non-educable retarded.

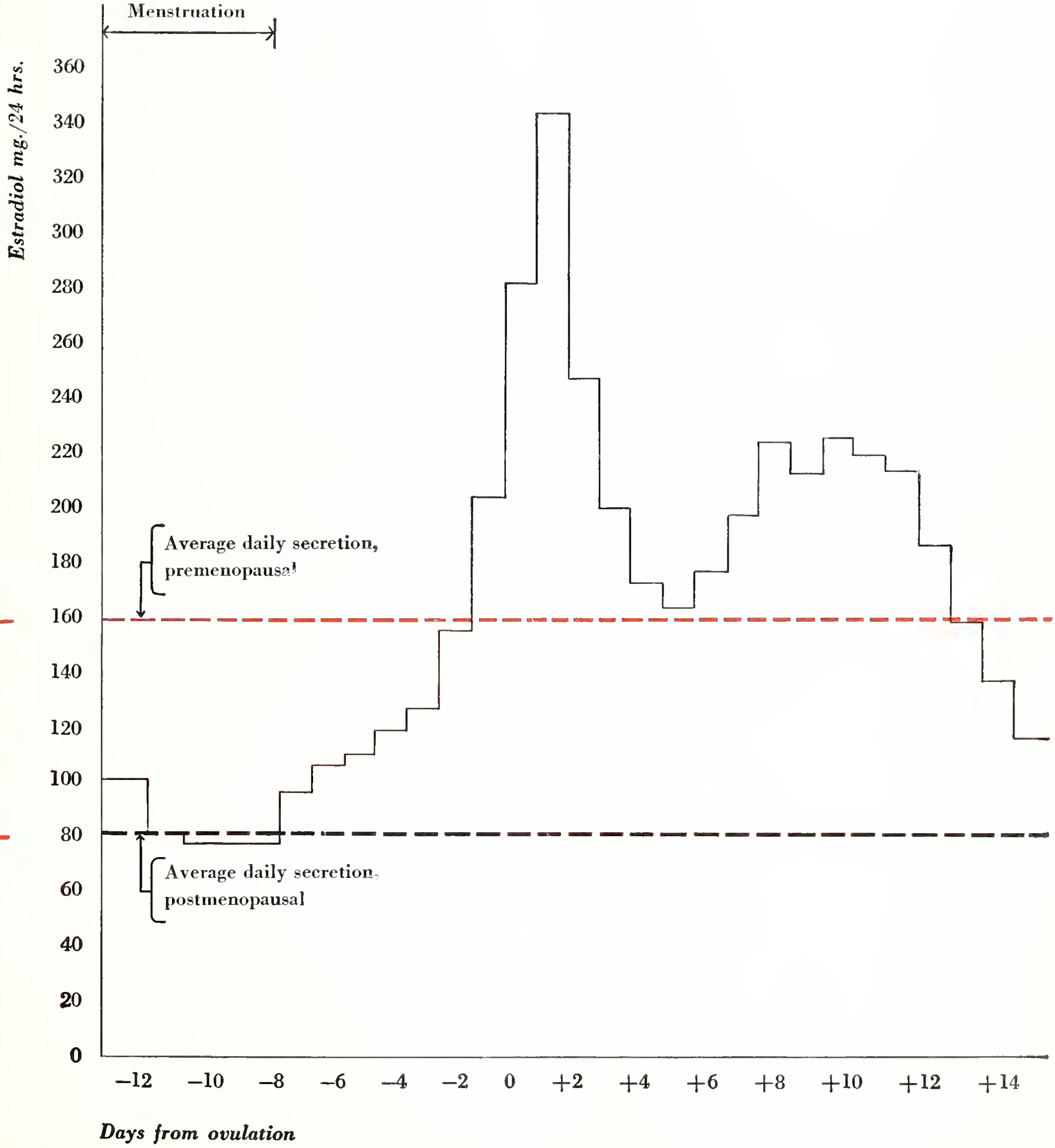
The governor recently stated that just 35.5 per cent of the public health programs required by Missouri law are being carried out because of money and personnel shortages.

"People will need to vote additional taxation upon themselves, if they are to have their public health laws fully implemented," he said in a speech prepared for the American Public Health Association convention held last month in St. Louis.

The governor's speech, delivered by Dr. H. M. Hardwicke, acting director of the division of health, listed 25 programs in the field of sanitation, including controls over milk, food, drugs, hotels, motels and hospitals.

Missouri's Water Pollution Board said permits now are needed for the operation of any system for the collection, treatment or disposal of sewage

Endogenous estrogen secretion (mg./24 hours)
(calculated from average 24-hour urinary excretion
of estradiol, estrone, and estriol)



or industrial waste by any city, industry or person.

Regulations of the board became effective last month. The board was established last year by the Legislature in an effort to clean up Missouri's waters.

The Missouri Public Expenditure Survey has recommended better collection of state income tax as a substitute to the withholding tax idea being advanced by many.

The survey, a privately-supported watchdog on public spending, said "proven basic technics of income tax administration" are not being used fully in Missouri.

The organization also vigorously challenged the statement of Milton Carpenter, state revenue director, that a withholding tax would bring in an additional 6 to 8 million dollars a year. Instead it called for stricter enforcement of the existing law to bring in more money. The survey listed major disadvantages of the withholding system:

1. Tax increases would become easier because the withholding system "dulls tax consciousness of citizens."

2. "It would bring unsound, windfall financing." Since wage and salary earners would pay an added year's tax during installation of withholding, a one-shot swelling of state receipts would result. This also would be expected to apply to physicians, lawyers, farmers and other self-employed.

3. Withholding would place considerable cost on employers, averaging $2.00 an employee per year.

4. The state and employers would be involved in a huge accounting and reporting process with thousands of cases, in which the amounts withheld would be only a few cents a week. The making of hundreds of thousands of refunds each year also would prove a heavy and costly task.

The scale model of the state's new 10-million-dollar medium security prison to be built near Moberly has received its tentative approval from the governor and Col. James D. Carter, state corrections director.

The next step will be for the state board of public buildings to approve the design. When actual construction gets under way in about six months, it is estimated it will take from 18 months to two years to complete the entire institution.

There will be nothing else like it in the nation, Carter said. It will be a campus layout, costing a least 7½ million dollars. It is expected the remaining 2½ million dollars will be used for equipment.

"We intend to make it a privilege to be sent there," Governor Blair said. "The emphasis will be on education, not incarceration."

Initially, it will have three housing units of 320 capacity each. Plans have been made for a fourth unit when funds are available. Inmates will occupy single cells.

Division of Health

(Continued from page 1288)

gated by the Division of Health, and is thereby conducting himself so as to expose other persons to danger of infection, after having been directed by the local board to comply with such rules the local board may institute proceedings by petition, for commitment, returnable to the circuit court of the county in which the person resides.

"Local board" shall mean any legally constituted local city or county board of health or health center board of trustees or the Director of Health of the City of Kansas City or the Commissioner of Health of the City of St. Louis or, in the absence of such board, the county court or county commissioners of any county.

If the court finds that the person named in the petition has communicable tuberculosis and conducts himself so as to be a danger to the public health, an order shall be issued committing the individual named in the petition to the Missouri State Sanatorium and directing the sheriff to take him into custody and deliver him to said sanatorium.

Upon commitment, the patient shall be confined to the sanatorium until such time as the superintendent determines that the patient no longer has communicable tuberculosis or that his discharge will not endanger public health.

Any person committed as hereinbefore provided who leaves the Sanatorium without having been discharged by the superintendent shall be taken into custody and returned thereto by the sheriff of any county where such person may be found.

No person having communicable tuberculosis who in his home or other place obeys the rules and regulations of the Division of Health for the control of tuberculosis or who voluntarily accepts care shall be committed as hereinbefore prescribed.

No person committed to the Missouri State Sanatorium under this act shall be required to submit to medical or surgical treatment without his consent.

The Missouri State Sanatorium is rated by the Joint Commission on Accreditation as one of the outstanding tuberculosis hospitals in the United States. This gives assurance of a high standard of medical and surgical care for all patients from all levels of life.

Lack of support caused the failure of the compulsory isolation bill in the last General Assembly. Without the support of the medical profession of Missouri, this proposed legislation will fail again in the coming session. The Missouri Division of Health will support this bill with all its facilities. The division hopes that for the sake of all patients and the safety of all communities every member of the medical profession will not only endorse this program but give it the utmost cooperation and assistance.

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WINE AND THE DIGESTIVE TRACT—With its low concentration of alcohol, wine in moderate consumption has been found to induce a marked increase in biliary flow.[4] This, together with increased function of pancreatic enzymes, may thus encourage better digestion of fatty foods.

THEREFORE—IN THE TREATMENT OF DIGESTIVE DISORDERS—Wine is being widely recommended in the treatment of anorexia, hypochlorhydria without gastritis,mucous colitis, spastic constipation and diarrhea, and in digestive disorders stemming from emotional tension and anxiety.

These and other modern ℞ uses for wine are discussed in the brochure "Uses of Wine in Medical Practice." For your free copy write—Wine Advisory Board, 717 Market Street, San Francisco 3, California.

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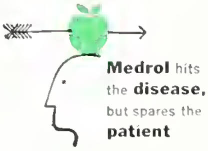

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MISSOURI HOSPITAL ASSOCIATION

Dr. Francka announced that he had been asked to speak to the Missouri Hospital Association.

BASIC SCIENCE COURSES

Dr. Furlow announced six courses in Basic Sciences which will be presented by the St. Louis Medical Society in cooperation with the faculties of St. Louis and Washington University Schools of Medicine.

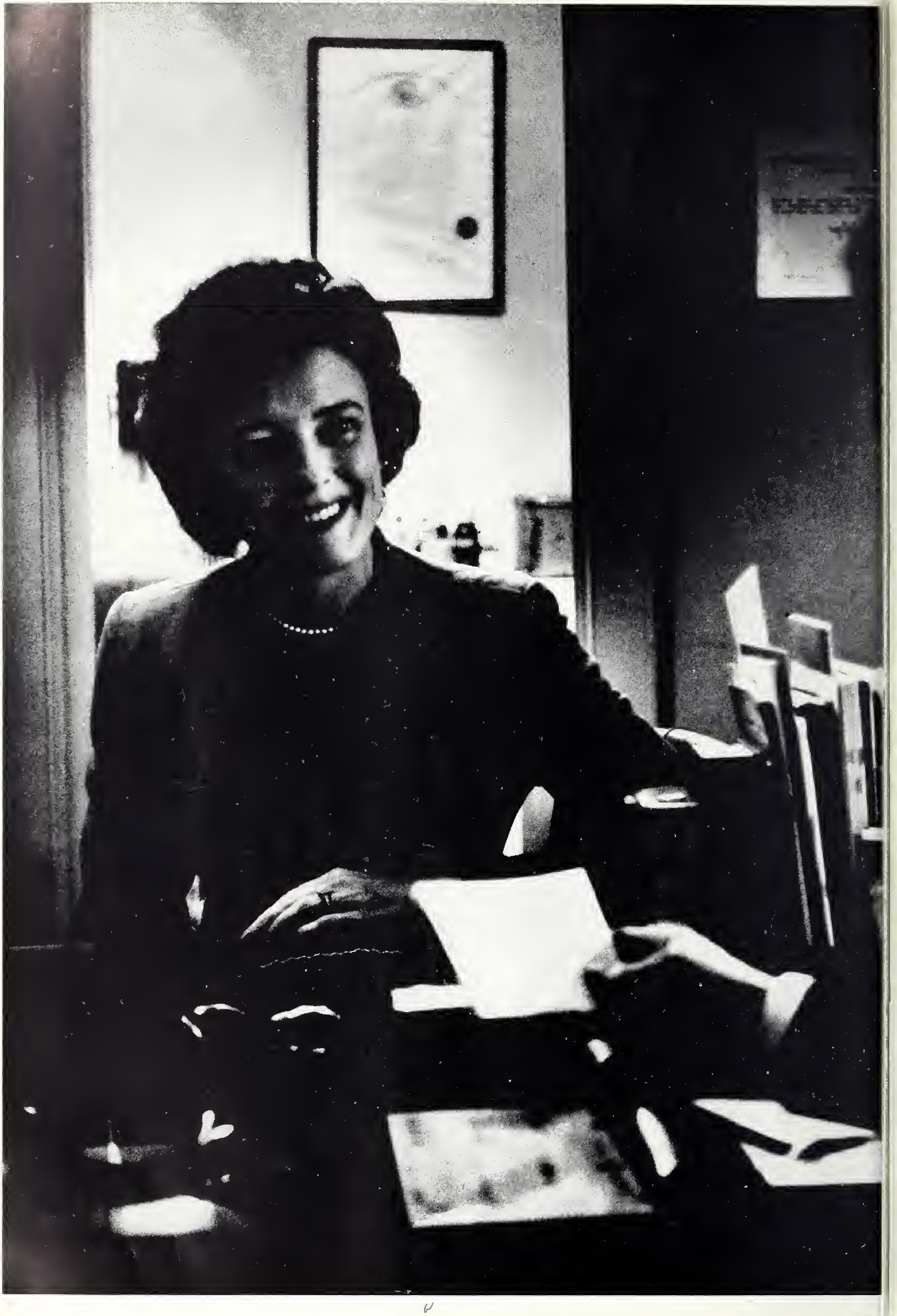
J. H. SUMMERS, M.D., *Chairman*

OLD PHOTOS OF PHYSICIANS DRIVING ANCIENT CARS WANTED

The Illinois State Medical Society is preparing an exhibit centered around an *Illinois Medical Journal* article which told of the role of physicians in the development of the automobile in the United States at the turn of the century.

To help illustrate this exhibit, the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900-1910 vintage. Scenes showing difficulties on the road, or poor highway conditions, are especially desired. Enlargements will be made of these photographs and the originals returned undamaged.

Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. They should be sent to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1.



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